



DISTINCTIONS

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DISTINCTIONS, the journal of the Honors Program of Kingsborough Community College of the City University of New York, welcomes the submission of scholarly articles and creative works that explore all aspects of academic endeavor.

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EDITOR'S NOTE

From Jermani Faulk's discoveries of how governments provide access to technology to Kiran Zahid's analysis of inclusive classrooms to Lobelys Anicet's discussion of America's obesity crisis, several of the pieces in this issue concern public service, public policy, and the greater social good. I am pleased by how thoughtfully the authors recognize their own personal connections to the problems and challenges they have described and presented. Loretta Abuhammour's business analysis of a famous paper company is engaging and informative, while Ricardo Medina's discussion of Beethoven's life and work is full of bright and revealing observations about the musical genius. Ilhom Islomov, for his part, finds new and pertinent ways to talk about the Second Amendment. Heidi Zavala's far-ranging essay on violence against women is, by the way, her third contribution in the last year and a half to *Distinctions*; John Johnson's intriguing essay on W. G. Sebald's *Austerlitz* is his second. Finally, Mayya Lebedeva describes the challenges that nurses face when dealing with patients' diabetes and Anna Lim, in a complicated chemistry experiment, explains a new method of synthesizing molecules.

While the journal owes its creation to the Honors Program, the contents are not exclusively by students in the Honors Program; Kingsborough's students are wonderfully diverse and knowledgeable, with experiences gathered and gleaned from around the world and from around the world that is New York City. Speaking of knowledgeable, I must thank Khawaja Muneeb Hassan of the Honors Program office for all his work in rounding up and organizing the submissions; he made numerous contacts with students and has made my job easier. Nehal Naser, one of Kingsborough's top students, has been a marvelous assistant this semester; she spent hours deciphering and inputting my scrawled corrections and editorial emendations, and in addition found a number of the illustrations that accompany the articles. As always, the gracious director of the Honors Program, Dr. Rachele Goldsmith, who is unfortunately retiring, has been the best promoter of the journal. I look forward to the continued help of Associate Director Helen-Margaret Nasser. Associate Provost Dr. Reza Fakhari and Vice President for Academic Affairs and Provost Joanne Russell have generously provided the journal's financial and institutional support over the last year, for which I am most grateful. Janine Palludan, the Executive Assistant to the Associate Provost, has helped me arrange for the printing, and the chair of the English Department, Eileen Feretti, has kindly granted me the time to act as editor. Tsubasa Berg and Irina Pistsov, the talented designers at the Kingsborough Center for e-Learning, have continued to make *Distinctions* look good. I need to thank my fellow teachers at Kingsborough for creating the assignments and encouraging such interesting and fine work by their students; their devotion to and belief in their students has inspired these eleven essays and articles.

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HEIDI ZAVALA

WHAT ARE FEMICIDES?

Sociology 38 (Sociology of Gender), Spring 2016, Professor Dominic Wetzel

According to the World Health Organization, “violence against women comprises a wide range of acts—from verbal harassment and other forms of emotional abuse, to daily physical or sexual abuse. At the far end of the spectrum is femicide: the murder of women” (Garcia-Moreno). Femicide is very different from homicide. Femicide is rooted in gender inequality and animosity towards women generated by a patriarchal system that dictates that men are superior to women. It refers to the crimes against women committed for the only reason that they are women. In many countries, cultures, and societies this has been accepted and encouraged. There are different types of violence against women, such as beating, mutilating, torturing, or killing. Many governments have made laws to protect women, but we are still seeing femicides. I will explore how the problem of femicides in Mexico illustrates larger issues of gender inequality.

One example of a country in which femicides used to be a problem is China. Years ago their policies were very strong against females. The law said a couple was allowed only one child; as a result, in many cases when young parents had baby girls, they would rely on abortion to terminate the pregnancy. The Chinese considered women less important, socially and economically, than men.

Femicides occur in Argentina, Chile, Uruguay, and India. The dowry practice in some areas of India is a form of murder of women related to cultural beliefs. The woman is killed for bringing an insufficient dowry to the husband's family. In eleven cities in the United States, it has been recorded that groups of women have suffered from domestic violence during pregnancy (“Understanding and Addressing Violence”). It is a global issue and we should educate males and females about how to understand that gender inequality harms our society. It is important because if a man commits a crime against his wife, he will go to jail and the kids who remain in that home will be left on their own.

In the “Transfrontera Crimes: Representations of the Juarez Femicides in Recent Fictional and Non-Fictional Accounts,” Marietta Messmer notes that the North American Free Trade Agreement (NAFTA) was signed in 1992 between Mexico, Canada and United States. That was to create a transnational economic space across North America

and eliminate trade obstacles between those countries. It led to the building of factories and attracted unemployed workers from all Mexico to its borders. Around 3,100 factories gave jobs to more than one million Mexican workers, of which a quarter were in the city of Juarez, the Mexican city in Chihuahua that borders El Paso, Texas. They were jobs with low pay and no security. Most of those workers were women who were under thirty years old. These women would soon become the target of gender violence. The problem of femicides in Mexico demonstrates a larger problem with gender inequality. The greatest problem is that women are seen as inferior to men. The rapes, assassinations, and lack of solutions to that problem indicate that this patriarchal system encourages the denigration of women instead of solving the problem.

Between 1993 and 2005 around 400 women were assassinated and hundreds of others disappeared in the city of Juarez; according to the *NACLA Report on the Americas* in “Combating Impunity and Femicide in Ciudad Juarez” by Lourdes Godinez Leal, the victims were women aged thirteen to nineteen. They were raped and those who were killed were found in empty city lots. Godinez Leal states that in 2006, 160 male perpetrators were arrested and were serving prison sentences. However, the crimes against women have continued. “To date, law enforcement has not seriously investigated the serial nature of the killings and the motivation for them remains a mystery” (Godinez Leal). Why aren’t the Mexican authorities investigating the motivation for those femicides? Different political parties exist in Juarez; the parties have been elected, but unfortunately they did not solve the murders of at least 364 women (Godinez Leal).

In 2003 many mothers of assassinated women in Juarez attended a march to demand that local authorities investigate the crimes against their daughters. They wanted the Mexican government to do something to help them. Godinez Leal points out that Diana Washington Valdez, a reporter for the *El Paso Times*, suggested a theory that “men are committing crimes simply for the sport of it.” It is like a person hunting animals for pleasure or fun. Years ago our ancestors hunted but not for fun or pleasure; they did it because they needed to survive. I find it appalling that people hunt “for the sport of it.” Some men are violent and aggressive in order to feel accepted by their peers. The social construction of gender identity leads to some men thinking it is right to act or attack others, often women, because the gender pressure dictates those performances make them “real” men.

The gender binary does not describe a large number of people, though. The idea comes from cultures and societies where people believe in the gender binary idea, which refers to the existence of only “male-bodied people (masculine) and female-bodied people (feminine)” (Wade and Ferree 10). The social construction of gender encourages many people to believe, even today, that gender is simply innate. That means it is determined by nature and genetics. Although our technologies are very developed, this idea about how gender is socially determined, how it is produced and created by society, is very outdated. The social norms and gender rules are very archaic.

The gender binary concept is the product of an older idea: whatever man is, woman is not; men and women are completely different. A second idea is that men’s and women’s qualities are exactly the opposite of each other. For example, men are physically strong and do not show emotions; they don’t cry. Women, on the other hand, are physically weak and show their emotions. Wade and Ferree write: “Today most people in most Western countries are familiar with the general idea that men and women have contrasting strengths and weaknesses” (10).

In Mexico, where I was raised, many men believe in a binary system. There is a belief

that femicides are happening in Juarez because the perpetrators need to satisfy their sexual desires. They believe sexual desire is a man's "quality." Some men in Mexico believe criminals who rape victims should not be penalized. There is a belief that young women who look good must be engaged in sex work. In addition, there is a belief that men are "free" to attack these women. This issue specifically affects women involved in stigmatized professions, such as club dancers, bartenders, or prostitutes. Males in this binary system want to prove they are stronger than females, and they perform forced sexual assault on weaker women.

Newspapers and academic journals explore these ideas. The article "Las Muertas de Juarez: 20 Años y Contando. Hasta Cuando?" informs its readers of the murder of Alma Chavarria Farel, who was thirteen years old in 1993. She was raped and stabbed to death. After that murder, many disappearances of young girls were reported and almost 400 women were reported killed. The Mexican authorities blamed the victims because they walked in certain dangerous neighborhoods. The governor of Chihuahua, Francisco Barrio, suggested that respectable people usually stay at home and only shady people are on the streets. In that state the women are expected to stay inside even if they need to go to work and get money to feed their families. Women are perceived as weak, yet nothing is done to protect them. Instead, the officials condemn the victims and not the criminals.

These violent acts committed by men seem to be a result of the society, which includes the police, expecting and accepting this male behavior in the street and in the home. This is gender policing. Gender rules and policing are social patterns and norms as a result of social relationship rather than biological or psychological predisposition. Wade and Ferree explain: "We learn complex sets of gendered expectations that tell us how to behave as men and women in varying situations. While we sometimes act in gendered ways out of habit, we also come to understand that if we fail to do so, others may tease, hassle, or hurt us" (60). As a result of our social interaction with others we learn gender patterns that tell us how to behave like men or women. For example, we act in gendered ways to avoid teasing. "Gender rules are, essentially, the social construction of gender re-stated in the form of an instruction," write Wade and Ferree (61). Those rules refer to how people are raised according to their gender; many of these rules are applicable to us in daily life, in our homes, jobs and any activities. Some rules are very strict.

Messmer writes about further investigating done by Teresa Rodriguez, a reporter from Univision Channel network, who traveled to Juarez to investigate the femicides. The authorities had to accept that there was a big problem with violence against women and they announced they had caught the serial murderer of those crimes. Rodriguez interviewed the alleged suspect, the mastermind of those horrific acts against woman. The Egyptian Abdel Latif Sharif was a chemist who was deported from the United States to Egypt because he was a convicted sex offender. He used to work in one of the factories, and authorities said he was the boss of the bus drivers who also participated in the violent acts. He was a member of two gangs, Los Rebeldes and Los Toltecas. Those gangs were very violent and many bus drivers belonged to those delinquent groups. He related to Rodriguez how he and those gangs committed some crimes. He was sentenced to 30 years of jail. After eleven years in prison he died and the Mexican authorities said it was of natural causes (Messmer).

The crimes against young women continued and the Mexican society started to believe that, as in many other cases, the Mexican government had a scapegoat and made them believe he was responsible for the crimes. Mexican citizens believe authorities are covering up the real criminals, who were, probably, policemen, or somebody part of the government or with a high political power who had to be protected.



Sociologists use the term “gender-policing” to describe responses to the violation of gender rules aimed at promoting conformity (Wade and Ferree 71). Sometimes there are violations to those society rules which expect people to behave all the same. Another example of this happened in February 1999, when Maria de Jesus Talamantes confronted the authorities in Juarez (Messmer). She called the police because her neighbors harassed her husband and they wanted to hit him. She called the police to get protection, but Talamantes and her husband were put in prison. Later she denounced the local police department because she was raped by officers from that department. She stated officers from municipal forces and the state had been involved. That incident helped citizens from Juarez to claim that those horrible threats against woman were perpetrated by law enforcement officers (Messmer).

Women suffer in this way because they are seen as physically weak and less educated, and they have less money, less authority, and less power. They are expected to be fully responsible for children and the home. As a result, their public voices of complaint are not heard. This leads to the society blaming the victims, especially in cases of rape. Men blame the captive women for how they dress. We cannot blame the victims of rape for how they dress. The women in Mexico believe men tend to oppress and subordinate women. Because women suffer those inequalities, they can recognize them easily. On the other hand men don't suffer from inequality. Maybe some men recognize those inequalities, but they at the same time enjoy their role.

“What women and men don't wear is also dictated by gender rules,” write Wade and Ferree (62). Some rules tell us how to dress depending on whether we are women or men. “Earrings are a great example of the way that gender rules change, sometimes in ways that seem quite arbitrary,” add Wade and Ferree (63). Another great example is how today we are seeing more men getting plastic surgery, which a few years ago seemed only for women. What Wade and Ferree explain here reflects much of the world. Most of our societies work under modified patriarchy where men are accepted to be on top in the gender system. But they aren't limited to the binary system. “Part of being ‘modern,’ many people believe, is accepting the basic political equality of individuals,” suggest Wade and Ferree (118). Patriarchal societies and androcentrism make us believe that whatever is good for men is

good for everyone and whatever is good for women is only good for women. For example, it is acceptable that women can wear pants but unacceptable for men to wear skirts.

Wade and Ferree explain that gender intersects with economic class; class drives people to find different strategies to do gender. Upper and middle class opportunities are easier than for the lower class because they have more and better ways to manage life. Unfortunately, for the poor there are fewer opportunities like social services, education and unemployment benefits. Middle class people have better jobs, more money and more choices. Wade and Ferree add: “These variables of economic class and place of residence intersect with gender, making certain strategies more available to some than others” (85). For example, a male from the higher class has a career and works a lot of hours. He makes a very good salary and can afford to support his family from all aspects. He is the breadwinner and that strategy lets his wife adopt a strategy of supermom. She can choose to be a wonderful wife who takes care of her children because she doesn’t need to go out to work. This man in this class does not really believe that for him to be a man he must hit people. He will less likely commit femicide.

Gender strategies are also shaped by race for some groups, especially for minorities who tend to be defamed, as African Americans are stereotyped. “Much more useful to white supremacists was the idea that black men were aggressive, prone to criminality and sexually violent,” write Wade and Ferree (90). Racial stereotyping is a good tool for some in the upper class to spread the ideas that African American males are criminals and aggressive. This encourages terror in that community and that helps those who are in the superior position to continue being in the same position.

Men mostly are in the government, especially the Mexican government. “Somewhere between reaching out to learn the rules, learning how to follow them flexibly, accounting for the many instances in which we break them, and seeking subcultures that share our sense of what rules were ‘made to be broken,’ we manage to develop a way of doing gender that works for us, given our opportunities and constraints. We grow up into culturally adept, gendered adults and leave some portion of the rigidities of childhood behind,” according to Wade and Ferree (80). We should discard and avoid whatever we find humiliating because when we are adults we understand what makes us happy. We are taught to see the women as inferior and less valuable. We are also taught that men’s opinions are superior. Women agree that the binary system is unfair to them because it is not only about the difference between men and women, it is also about hierarchy. However, when we develop a society of men who feel as if they are not important, we also encourage brutal behavior, which can lead to femicide behavior. We need to be careful about balancing our depiction of men and women.

The problem of femicides in Mexico illustrates the larger issue of gender inequality. In “Review of Gender Violence at the U.S.-Mexico Border: Media Representation and Public Response,” Oralia Gomez-Ramirez and Tiantian Zheng point out that television news reports create a myth that blames the victims of crime, who are often women, as being responsible for the crime. The authors provide an analysis of the assassination and disappearance of women in Juarez. They explain: “Many films and news reports portray the murders of women and social turmoil as a testament to a deterioration of conservative family values and traditional gender roles. In so doing, they deem women responsible for their own deaths and deny the role of the state in preventing and solving these crimes” (Oralia and Zheng). Society blames the women who abandon their homes and do not raise their families in the traditional way. Being traditional

means that women stay home and pass their values and knowledge to their children to make them good citizens. The media blames the women who are not like that and who go out and work. The media does not take into consideration that the men who commit violent acts, femicide, are not held responsible. The women are blamed instead.

In a more gender balanced home, these women also have to attend their families and do many chores of women in the house, such as clean the house, cook and take care of children. And their husbands can help to teach their sons and daughters and pass on their knowledge.

In many ways Mercedes Olivera's article can be said to focus on the similar issues, yet by employing different means she deepens it. In "Violence Against Women and Mexico's Structural Crisis," Olivera writes: "The massive integration of women into the labor force in search of a wage has effectively destroyed the traditional model of a sexual division of labor without changing the collective imaginary that women are dependent on men and that their obligations are in the home" (108-109). The author points out that women suffer when conservative values are imposed on them. Men refuse to accept that the economic situation in Mexico forces women to go out and work to fulfill the needs of their families. Because now women can find work more easily than men, men have started to depend on women. This changes the way a family works. "The contradictions between the vision and the reality of being a woman not only affect the situation and subjectivity of women but cause a crisis in the images men have of themselves," continues Olivera (109). She states those kinds of situations affect women and men physiologically.

The perpetrators of the Juarez crimes are identified as males prone to specific forms of gender violence, domination, control, oppression and power over women, according to the United Nations. Olivera states: "Gender violence is a constant violation of the human rights of women and girls. Its presence in the home, on the street, in the community, in the workplace, in government, church, and organizations and within couples allows tension and hatred to build up and reaffirms and reproduces gender relations of domination/subordination" (105-106). This is also emphasized by a Mexican congressional representative, Marcela Lagarde, who says she sees femicide as a tremendous issue of gender inequality. Olivera agrees: "I view femicide as but the extreme end of a range of violations of women's violations of women's human rights—a direct and extreme expression of economic, political, social, and gender violence that is structural in nature. Much of this generalized violence is exerted against women for being women—that it is misogynous" (105).

Violence and oppression towards women has played a role in shaping a new feminine identity. The basic argument that Angela Y. Davis posits in *The Legacy of Slavery: Standards of a New Womanhood* is that the unique labor situation of the black female slave resulted in standards for a new womanhood. African American women were forced to work outside of the home, because they did not have an option. In contrast, the white American women wanted to work outside of their homes to feel productive. Black women represent the acquired experiences of all those women who toiled under the lash for their masters, worked for and protected their families, fought against slavery, "and who were beaten and raped, but never subdued. It was those women who passed on to their nominally free female descendants a legacy of hard work, perseverance and self-reliance, a legacy of tenacity, resistance and insistence on sexual equality—in short, a legacy spelling out a standard for a new womanhood" (29). A retired professor at University of California, Santa Cruz, Davis has been a longtime activist for women's rights. Although her political career is controversial to some, her dedication to helping women to gain equal rights

cannot be contested. Davis has shown the strength of African American women, and how the standards for a new womanhood was passed on from them. They have created a legacy of hard work, constancy, autonomy, courage, counteraction, and gender equality to overcome their oppressors, and to protect their families, to bring down the chains of suppression against women. The mothers of the victims of femicide in Juarez organized and marched in order to demand the local authorities to investigate the murders. Much like Davis' strong African American female, the victims of femicide leave the legacy of hard workers. Also, consistent with Davis' new standard of womanhood, the political action of the mothers of the victims of femicide does not represent docility or concepts of female inferiority. Rather, it represents strength and a willingness to not be subdued.

As I have pointed out, femicides are a global issue that we should take into account. Many times different families from different backgrounds prevent girls from going to school because they believe that when a woman goes to get an education, she can become promiscuous. Not all men think that way, however. For example, my husband, Gabriel A. Verduzco, told me the other day that some friends at his job advised him not to let me go to school. They said the wife should stay at home to take care of the house. They said women should clean, cook and wait for their husbands at home. He responded that such ideas hurt our society. He believes it is very important for any kind of person to realize himself or herself as a person. My husband told them, "Some people, like my wife, like to study, so I respect her decision and I encourage her every day to become a professional." He is a supportive and loving husband and I am proud of him because he does not believe a man is better than a woman. He told me, "They are not my real friends. I think those men are the kind of men who may become violent against women."

I understand centuries ago men went outside to their homes to get food for the family and women stayed at home to cook and take care the kids and everything worked very well. But many women in my family, with the changes in the economy, had to go outside of their homes and work to help with the bills. My grandmothers did that, my mother did that, I am working also. I am attending college, and I take care of my home. I receive a lot help from my husband, too: he helps me to clean, to cook, to do laundry, and do the dishes. I always thank him for all that. We take turns doing all of these chores because we believe nobody is better than anybody else; human beings need to help one another in order to feel fulfillment.

We need to analyze our moral rules and expectations and find out which ones really help our society and which ones harm it. Gender inequality harms our society. We should encourage victims to denounce those gender crimes because when victims stay silent the perpetrators keep thinking they can commit their crimes. In this way if the victims are heard, the authorities, medical staff, and other agencies can get information from the victims. They can get training and be sensitized to prevent further crimes against our women. We should teach our youngest men and women how gender inequality harms society. We can simply explain to our children that when men commit violence against women, they are violating the women who could be their own mothers, or their own sisters, who will be the mothers of the next generation.

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JERMANI FAULK: *“Being in Kingsborough for a year and a half has given me so many opportunities, and one of the richest opportunities has been the Honors Program. The Honors Program has offered me and my fellow students challenging courses and assignments, making us as ready as possible for top senior institutions across the nation. The Honors Program has allowed me to open up my mind and think levels deeper than I ever knew I could. This essay is proof of that, because before taking the course on state and local politics, I had no clue about how important local lawmakers were to my everyday life.”*

JERMANI FAULK

ACCESS TO TECHNOLOGY: A STATE AND LOCAL GOVERNMENT PERSPECTIVE

*Political Science 53 (State and Local Government and Politics), Spring 2016,
Professor Tracy Steffy*

In our postindustrial, high-literacy, computer based society, exposure to technology is inevitable and necessary in order to be able to work in today’s world. Children grow up with not only television and telephones at their disposal, but also iPhones, tablets, smart watches, wireless headphones, next-generation game systems, hybrid cars, and the list goes on and on. Technology can be found in just about every place on earth where there’s human civilization and in major cities like New York, Los Angeles, Miami, Atlanta, Las Vegas, etc., technology is what helps all of these places operate. However, technology has to be sustained and therefore demands constant attention as infrastructure created must be maintained and upgraded if it is to remain relevant. Someone has to spend large sums of money in order to promote this sustainability and this includes both private entities and institutional actors including federal, state, and local agencies.

When governments try to improve access to technology by making it easier, for example, for the average working-class citizens/minorities, they have to come up with ways to improve their cities in specific but necessary ways. Technology seems to be available to most citizens in some shape or form, but if one looks at the individual who has been fired from their job and can’t afford their phone bill, or a television, or the individual who was born into poverty and has limited access to technology, it is then up to the state and local governments to come up with innovative and effective ways to make technology accessible to as many people as possible with the ultimate intention of making it accessible for everybody. Technology is necessary but access may be limited for reasons such as poverty, uneven distributing of technological infrastructure, and inefficient broadband connections. States along with local governments must therefore enact policies to improve access. Beyond the access issue for citizens and customers, there are issues in criminal justice and regulation that arise because of technological advances, such as 3D printing. Without proper regulation, 3D printing of guns could be problematic.

According to Jan A. G. M. van Dijk (2006), an expert focused on researching phenomena

surrounding technology, in the 1990s the subject of unequal use of new media was the beginning of discussion of the digital divide (Van Dijk 2006). Before this time other terms such as information inequality or information gap were used in order to describe the ignorance or lack of access to the latest innovations (Van Dijk 2006). The digital divide is regarded as defined as a gap between those who do and do not have access to technology such as computers and the internet, mobile telephones, and digital television (Van Dijk 2006). This gap exists because of different levels of income resulting in different quality internet connections or lack of access entirely. People living in rural communities may be too poor to afford it, or there may be a lack of providers in a particular area, and in urban areas as well income and lack of infrastructure may be an obstacle. Van Dijk (2006) notes that the majority of research done on the digital divide covers the observation of divides of physical access to computers and the internet among demographic categories such as: income, education, age, sex, and ethnicity. The first nation-wide surveys conducted at the beginning of this century showed growing gaps in access between people with high and low income or education and between whites and minority groups (Van Dijk 2006). In developed countries, physical access divides began to decrease as people with high income and education reached capacity (the highest they can reach in terms of monies and access) and people with lower income and education started to catch up (Van Dijk 2006). People with less access to information via the internet have less ability to engage in the democratic process. They don't get to be a part of online communities where people share ideas and are essentially disengaged from trending information (Van Dijk 2006).



In the United States many efforts to improve access to technology have been instituted in different states. According to Ellen Perlman (2000) in *Managing Technology: Policy, Politics, and Leadership*, Colorado Governor Bill Owens spent \$100 million on information technology (IT) goods and services for his state in order to increase availability and usage of technology (Perlman 2000). According to Joseph Reid (cited in Perlman 2000) in St. Paul, Minnesota, the ongoing topic of concern is how to get all of the residents there access to the internet. He believes that wiring schools isn't enough for the access that people need because schools aren't always accessible. "It's not the difference between having a Chevrolet or a Cadillac," he said. "It's the difference between having a car and not having a car. We need to make sure homes are also wired, so children, parents and grandparents have access" (Perlman 2000). To make this a reality, officials in St. Paul

urged employers, nonprofit organizations, and universities to help provide this extra access through using their libraries and recreation centers as access centers to computers and the internet (Perlman 2000). This doesn't completely solve the issue of internet in the home, but it is a positive step towards increasing access to individuals so they can complete research, search the web for employment, or enjoy any other web-based activity.

Mary Beth Susman (cited in Perlman 2000) notes that in Kentucky, technology is helping to increase the number of students attending and graduating from college. An increasing number of students don't attend classes on campus, but instead take their courses online. On-line classes reduce costs such as room and board, child care, or transportation. Students apply, register, and take courses which they can access from any institution of higher learning in the state. Universities are also in the process of implementing career help, job searches, and tutoring services online. This virtual university is being funded by a \$20 million state trust fund and gives students a variety of ways to access their online courses such as public-access workstations in public libraries, National Guard Armories, and at high schools and community colleges. If it is difficult for students to use any of these resources for any reason, the online university program of Kentucky also offers a laptop/computer loan program. They also offer an online library with 80 million volumes of books and 5,000 periodicals (Perlman 2000).

According to Christopher Swope, another way to increase access to technology is through public Wi-Fi that citizens can access anywhere within city limits. This innovation could make it much simpler for people to use their laptops while outside. For the citizens who don't have data on their phone plan, free Wi-Fi would be a huge help to them if they were in a public park walking their dog and wanted to access the internet from their phone. Swope (2006) notes that Philadelphia tried to implement public Wi-Fi and started a city-wide wireless project. EarthLink made a deal with Philadelphia that could benefit both parties and provide the public Wi-Fi Philadelphia was hoping for. They would give Philadelphia 3,000 free or discounted wireless accounts for its field workers, in which Philadelphia would then take a portion of that income and buy computers and discount services for low-income families. The discount price was a retail rate of \$10 a month as opposed to \$20 a month. For such a policy change within Philadelphia to take place, they would have to give up the usage rights to 4,000 street lights and ownership of the Wi-Fi network. Philadelphia accepted the deal that would give many without access to computers and internet services a chance to enjoy critical access to the internet (Swope 2006). This was a generous act that will definitely help the city of Philadelphia develop, because it increases the number of engaged citizens. In an age of seemingly having the world in the palm of your hands with the use of computers and smartphones, this policy change must have helped get the less affluent people connected.

Recently, states across the country have been implementing policies that would increase access to technology and improve broadband connections, according to Mike Maciag (2012) in *State Broadband Initiatives Accelerate to Bridge Digital Divide*. Many rural communities have very limited internet access and the access that they do have often runs much slower than that of urban communities. Ralls County, Missouri, has suffered with slow wireless connections for years; however, a local cooperative installed direct fiber connections to homes throughout Ralls County. People with this service now have wireless internet that moves at speeds of 10 to 20 megabytes per second (Maciag 2012). As important as the internet is in terms of governance and business during today's

times, it's important that rural communities also get to enjoy the same internet speeds as urban communities (Maciag 2012). It's essential that everyone can access technology because if states have many rural areas without it, their state can fall behind and be stuck working with technology every other state has already upgraded from. The Federal Communications Commission (FCC) estimates 18 million Americans reside in areas with deficient broadband access, which places many at an economic disadvantage and makes it hard for these people to gather information online and even harder to adapt to our current society (Maciag 2012). Maciag (2012) reported that the state of Missouri established public-private partnerships with Ralls County Electric Cooperative and other groups that work in rural areas. In addition, Governor Jay Nixon announced an initiative in 2009 in which he guaranteed broadband to 95 percent of his citizens by the end of 2014 (Maciag 2012). Representatives from governments, schools, and other public services then formed regional commissions to develop plans for each community within the state. According to Damon Porter (cited in Maciag 2012), more than 100 broadband providers are participating statewide. The positive results of faster internet opening many doors for communities, for example, are that doctors can interact remotely with their patients, students are able to download audiobooks in seconds, and farmers can sell their produce more quickly.



Other states are also following in Missouri's footsteps (Maciag 2012). For example, Ohio Governor John Kasich announced that he wanted to spend \$8.1 million improving the state's 1,850-mile fiber optic network, the OARnet. John Conley (cited in Maciag 2012) said that most of Ohio's wireless network is focused around universities across the state. New York Governor Andrew Cuomo proposed \$25 million in March 2012 in order to extend internet access to remote areas of New York State, including the Adirondacks. The state, legislature, would have to shift money from an economic development fund and approve partnerships with telecommunications companies. Also, Google has begun creating a foundation for a new fiber network between Kansas City, Mo., and Kansas City, Kan. Upon completion of this project, residents are expected to enjoy speeds 100 times faster than current broadband capability (Maciag 2012). The policy changes made by states are helping people in many ways. However, even with all of these efforts to help those without access to internet and technology, the United States ranks 25th in the world in terms of internet speed according to a Pando networks study. South Korea tops the list with speeds far greater than the other developed countries. During

another test by broadband company Ookla and Speedtest.net, America is 33rd, trailing countries such as: Lithuania, South Korea, and Latvia, to name a few (Maciag 2012).

Many factors contribute to people not having access to technology in addition to geographical location. According to multiple studies, poverty is one of the key reasons millions of Americans struggle to get connected. A 2011 report by the Joint Center for Political and Economic Studies examined broadband access in Los Angeles, South Carolina and Chicago. Researchers found that residents living in high poverty areas had many fewer internet providers to choose from (Maciag 2012). Nicol Turner-Lee (cited in Maciag 2012) said that residents of poor communities are typically limited to one or two providers. The study didn't assess cost, but it's not unrealistic to assume that less competition results in higher prices and slower speeds. Huge provider fees prevent many low income families from getting internet access. With no internet access available to these families, breaking the cycle of poverty becomes very difficult in our post-industrial, high-literacy society (Maciag 2012).

Increasingly, state and local governments have had to implement policies on technology when criminal activity is suspected. According to Eyragon Eidam (2016) in 7 Tech Policy Issues to Watch in 2016, lawmakers in New York are trying to obtain easier access into smartphones that are sold or leased in their state after January 1, 2016. During June 2015, Assembly Bill A8093 was passed but due to its ineffectiveness, it was amended and reintroduced this January and would require cellphone companies and providers to decrypt each unit that they sold (Eidam 2016). The bill also posed a civil penalty of \$2500 for each cellphone that couldn't be unlocked or decrypted if the vendor had known this prior to selling it. To lawmakers, law enforcement should be able to get into any Apple iPhone or Microsoft Android device because it helps stop criminal transactions and can even be of aid during prosecution (Eidam 2016). Another policy dealing with criminal activity is the Citizen Privacy Protection Act, which was passed in Springfield, Ill. This act limits the police's surveillance ability on private citizens and was initiated during January of this year (Eidam 2016). One police surveillance device, the Stingray, mimics cellular towers to connect with smartphones for collecting data and tracking people. Before this act was passed, police could use the Stingray service anytime and on anyone they wanted to. Now, police have to meet probable cause requirements, obtain a court order, or show that the person being sought by police has committed, is committing, or will commit a crime (Eidam 2016). Also, the bill says that if the courts find that the police or law enforcement agencies use a cellphone simulator to gather information and it violates the limits set forth by the Citizen Privacy Protection Act, then the information will not be accepted or used in a judicial/administrative proceeding (Eidam 2016).

According to Eidam (2016), New Jersey created Senate Bill 363 to prevent criminal access to homemade firearms that are made using 3D printing, additive manufacturing, and computer-controlled milling. Guns made in this fashion are also referred to as ghost guns, as they are untraceable by metal detectors and X-ray machinery (Eidam 2016). These weapons are highly dangerous. An individual who has made a gun at home using this type of technology could sneak past security measures and wreak havoc. Although there's potential for ghost guns to be widely available, if Senate Bill 363 is passed, it will become a second-degree crime to possess, sell, offer for sale, give, or trade one of these firearms or firearm components. Offenders of this law can also be fined up to \$150,000 and be forced to serve five to 10 years in prison (Eidam 2016). Therefore, this state legislation impacts the access of technology in the sense that people will be

severely penalized for producing illegal firearms at home. Although not everyone will stop creating these ghost guns because of a new law being implemented, it will slow down the rate at which these ghost guns are being created and serve as a deterrent.

State and local governments are often overlooked because public attention seems to be on the federal government, when in reality it may be the state's policies are those that affect people most directly. State laws regulate businesses and institutes whether those be public or private, and set the guidelines for what is permissible and what is not. States create the laws that impact companies that operate in their state, which directly affects the citizens and customers on major issues such as access to technology. With population steadily growing, technology changes constantly. Access to the latest technology is proving to be an increasingly necessary resource. We use technology for education, transportation, for entertainment, access to information, to network with others, and for many aspects of our everyday lives both inside and outside the home. Technology has become central to our survival and the improvement of our lives. Therefore, it is essential that governors and legislators create policies that improve the access of technology so that it becomes easier for the middle-class and poor individuals to also take part in all of the benefits of our modern world. They must do this to eliminate the digital divide, to make technology accessible and to make access fair. Without access low income people have little chance at being able to do what the rest of society has come to experience as a fundamental necessity. Time doesn't wait for anyone and neither does technology. The policies being set in place by state and local governments are essential to closing the digital divide and providing the benefits of technology to as many people as possible.

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KIRAN ZAHID: *“I am a lifelong learner. I am studying Education as a major and want to become an energetic, enthusiastic educator. Teaching is my passion. I would love to work with future generations and help introduce them to bright and innovative ideas.”*

KIRAN ZAHID

WHAT’S THE BEST WAY TO APPROACH SPECIAL NEEDS STUDENTS IN THE INCLUSIVE ELEMENTARY SCHOOL CLASSROOM?

EDC 90 (Practicum in Teacher Development), Spring 2016, Professor Laura Kates

Inclusion is the belief that everyone belongs. The world is a diverse place and diversity should be welcomed and celebrated in the classroom. Children with special needs should be given the same rights as their nondisabled peers. Every child and family should be valued equally and deserves the same opportunities and experiences regardless of their gender, race, disability or socioeconomic status. For me this topic is very important because I have been observing the different general education classrooms for my education major and I have been noticing that some children were more advanced than others and some children were really struggling. I started to think about each individual and how can inclusive practices be incorporated in classroom settings as well as how students will effectively learn in inclusive classrooms.

“Inclusion education takes place in a classroom where general education students and special education students are taught in the same environment. This setting ideally consists of some students being at a slightly higher level, another percentage of students at an average level and the last percentage of the students being slightly below the average level” (Seddio). For me, the purpose of this information is to understand the meaning of inclusive classrooms where diverse students learn and understand together regardless of any weakness or strengths and the main goal is to expand the potential of each student. I believe that an inclusive environment has a positive outcome on children when exposed to it at an early age. According to my observations, inclusion helps to promote awareness, acceptance and tolerance in the children as well as helping the children to avoid developing certain stereotypes towards one another. In an inclusion classroom “... color, race, creed, or disabilities of any kind are embraced and treated equally... The model being presented is one of inclusion... there is an attitude of acceptance for all. Every child belongs, and every child has the right to an inclusive education” (Eredics).

I have personally experienced the self-contained non-inclusive classroom at my daughter’s school, in which classes were set up in a way that allowed the students to pass judgments on who was “smart” or who was “dumb.” The better performing children were

enrolled in sections like 401, 402 ... and the lower performing students were enrolled in sections 406, 407. The greater number showed the lower performing students or lower level students. I have also noticed the special education self-contained classrooms in that school had the highest number. For example, classroom 408 would be a special education classroom for special needs students. This classification of classrooms allowed the students to give labels and judge one another, which is a negative approach. Inclusion classrooms provide a chance to avoid situations like this from happening before they have a chance to start. According to a fourth grade special education teacher in Brooklyn New School, "It is important to allow young students to be involved in an inclusive classroom and give them opportunity to participate equally like their peers and give them the capacity to see beyond the brains or appearance. It is very important to help them to learn acceptance before they even know that they are slightly different from other peers" (Tina, personal interview).

As I noticed at Brooklyn New School in my field days, the students with special needs were equally participating and contributing with their peers and teacher with the help of paraprofessionals. The teacher used some techniques and strategies to motivate them and give them a chance to take part in a classroom equally with their peers. In this context, I interviewed my field placement's special education teacher, Mr. James (pseudonym used throughout). He said, "As regards teachers' support to special need students in developing social skills, there is a curriculum called 4 Rs from Morningside Center that focuses on social skills with particular attention to understanding and coping with emotions, negotiation/conflict resolution, and problem solving. It's not just for special needs students but works well with them too. It uses a lot of role playing and discussion" (Mr. James, personal interview).

I was curious about the assessment method that can be used for special needs students in the inclusive classroom and asked Mr. James about it. He said, "We use Teachers College Running Records to assess reading and make our own math assessments. Sometimes we give everyone the same math assessment and note the kinds of help we have to give individual students to get them to understand it. Other times we diversify and will make an assessment with smaller numbers to see how far students can go."

After this discussion, I noticed that in my field classroom, there are different levels of students who need different kinds of support. For example, one of the students is very good in academics but he needs special assistance in emotional and behavioral areas. There is another student who is emotionally very balanced and well behaved in the classroom but is having difficulty in reading and writing; he gets assistance in certain areas. So, through these assessments a teacher can observe and understand each student's individual performance and help the special needs students.

In schools, parents' involvement and communication is another special factor in this regard. Without parents' involvement, a teacher cannot handle these difficulties that special needs students have been facing in classrooms. Parents play an important role in the inclusive classroom. One educator observes: "For the last ten years of my career, I go to work every day with a mild case of cognitive dissonance. This is because while I am a promoter of inclusive education I continue to be a self-contained classroom teacher" (Villegas, 2013). Although Tim Villegas is in favor of inclusion, he believes that inclusion isn't for everyone and shouldn't be practiced in every school. According to Villegas, there are families who want inclusive classrooms for their kids but sometimes the inclusive classrooms are not accessible for their children. It does not mean that their children are getting neglected and their parents leave to participate in schools. But sometime there are no feasible options

for the teacher to help special need students. Family involvement plays a strong role in Villegas' decision to continue as a self-contained teacher because as a teacher part of his job is to support the families and sometimes that means listening to those he advocates for. For some of them that is a desire to stay in self-contained placements (Villegas, 2013).

In another article, Eradic is opposed to Villegas and chose a different strategy about parental involvement: "invite parents of all children in the classroom community to join [them] to help with activities such as driving for field trips, running science experiments, cooking activities, bingo games, reading, etc." (Eradic). I agree with her approach of parental involvement and how she finds ways for them to be involved in the inclusive classroom. The more informed parents are, the more accepting they will be to new classroom environments for their children. In involving the parents in the class, you are encouraging them to accept this new setting with open arms as their children will be doing. "I don't differentiate parents in the same way I don't differentiate students in my class," says Eradic.



In an inclusion classroom, some children can be leaders and some can be supporters. The children with the learning disabilities can benefit by using some support from their classmates. Here is a perfect reason why an inclusion class can benefit a child with a learning disability: if a child with a learning disability has the potential to excel and is placed in a separate class with students that are lower achieving than that particular child, he or she might regress and not progress.

Children with a learning disability must also have an Individualized Educational Program. An IEP is an agreement that must be developed around the child's needs, and a well prepared plan to help those children with needs fulfill their goals. Teachers must also set challenging but realistic and achievable goals to help the children with a learning disability. According to Adams, Affleck, Lowenbraun, and Madge, in special education classes "Teachers were obligated to teach the majority of the class to the level of the least common denominator – the most severely disabled students who needed the slowest pace and the least-challenging lessons" (Adams 2). Those children were not challenged and given the chance to use higher order thinking in those isolated special education classes.

According to the different studies, there is not only one best possible approach for

special need students in inclusive elementary classrooms. The benefits of inclusive education are numerous for both students with and without disabilities. In inclusive classrooms, special needs students can make friends, increase social interaction, and make peer role models for academic, social and behavior skills. They also can increase achievement of IEP goals. They can get greater access to general curriculum. They can enhance their skills acquisition and generalization. They can get help by their parents' participation and also help to involve their families integrated into the community. They will also learn increased inclusion in future environment. With these benefits of special needs students, the other students without special needs will also get help and learn so many valuable benefits. They will develop meaningful friendships, which will increase appreciation and acceptance of individual differences. This will also help them to increase understanding and acceptance of diversity as well as learn respect for all.

An inclusive classroom helps to prepares all students for adult life in an inclusive society and also get greater academic outcomes. In inclusive classrooms, all students will learn how to accept, share and tolerate others' perspectives and all students will learn how their needs can equally be met and how they can share their resources with each other. This promotes social growth in the child and discourages a close-minded mentality. Being around different students also allows for new bonding formations to come about. Friendships are crucial to our social development and these are teachable moments that are very difficult to accomplish later in life. Years of research have demonstrated that there is an endless list of benefits that an inclusive environment can have on a child. Overall, everyone benefits from this inclusion experience: the parents, teachers, and, most importantly, the child.

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LORETTA ABUHAMMOUR: “This was written for my accounting professor. It not only encompassed what we went over in class, but also incorporated what can be learned through the various disciplines of business by combining corporate financial statements, corporate history, and having the ability to decipher the available and relevant information. It is what one should look for to know whether or not it would be wise to invest in a particular company. I plan on graduating in the spring of 2017 with an A.S. degree in accounting.”

LORETTA ABUHAMMOUR

THE BOISE CASCADE COMPANY

Accounting 12 (Fundamentals of Accounting II), Spring 2016, Professor Eric Rothenburg

The object of any business is to be successful. Corporations are no different. The board of directors brings in the best management it can to achieve the goals of the organization. Good management is key since they will be bringing materials and human, financial, and informational resources together to have the business expand and grow. Such is the case of Boise Cascade Corporation. They have continually invested, acquired, and grown as a corporation. It has taken time, persistence, and capital, but Boise is effectively using their resources to ensure profits are up, dividends are being paid, and acquisitions are being purchased. For these reasons, Boise is a good company to invest in.

The Boise Cascade Company is an American manufacturer and distributor of lumber, building materials, engineered wood products, particleboard, and supplies a broad line of wood products that includes paper. It uses the trade name Boise Cascade and is a publicly traded company on the New York Stock Exchange (NYSE) under the symbol of BCC. It is headquartered in Boise, Idaho, and is run by Tom Corrick, formerly Boise Cascade’s executive vice president in charge of Wood Products. Boise Cascade is a well-known company, established in 1957 as a result of a merger between Boise-Payette Lumber Company of Boise and the Cascade Lumber Company of Yakima, Washington.

I have chosen to do this research paper on Boise Cascade because when I was working at both Bantam, Doubleday, Dell and Random House publishers before they merged under the Bertelsmann umbrella, Boise was one of the paper suppliers to both companies. We dealt with them regularly and had virtually no problems with their paper. If, by an off chance, the paper was not of high quality, they did their utmost to rectify the situation. Their sales staff was professional, courteous, and had products of excellent quality. Over the years, many books have been printed on Boise Cascade paper. It was my privilege to work with them professionally.

According to Hoovers, a business information company that compiles data and then translates it into business insights on an annual basis, Boise Cascade ranked as an S&P 600, #672 in the F 1000 (June 2015), and Russell 2000 (June 2015).¹ Underneath this listing, Hoovers notes Boise Cascade Company’s top three competitors as being Louisiana-Pacific Corporation,

¹ Boise Cascade Company Information. http://www.hoovers.com/company-information/cs/company-profile.Boise_Cascade_Company.9071b745d0000a5a.html

Weyerhaeuser Company, and Oregon Pacific Building Products (Calif.), Inc. They also state Boise Cascade is “North America’s #2 manufacturer of laminated wood, I-joists, and plywood.”²

Overall, the financial status of Boise Cascade has been consistent for the past few years. Yes, Boise would like its profits to be higher, but it knows by increasing its production and efficiency, it would lower the production costs. Thus, it has been investing and upgrading machinery and purchasing other assets. What has not helped is home starts have not fully rebounded from the recent recession. According to the income statement as found on NASDAQ’s website, the company’s total revenue in 2013 was \$3.3 billion; in 2014 it was \$3.6 billion; and in 2015 it was \$3.6 billion. Its gross profit in 2013 was \$426.9 million; in 2014 it was \$508.0 million, and in 2015 it was \$479.9 million. Net income for 2013 was \$116.9 million; in 2014 it was \$80.0 million; and in 2015 it was \$52.1 million.³ As one sees, the total revenue numbers are consistent, but not as high as one might expect for a corporation of Boise’s size. However, it is understandable since the housing market is rebounding, assets are being purchased, and upgrades to equipment are being made for a higher production capacity. One will see this more fully by examining the balance sheet.

As shown on NASDAQ’s website, Boise’s total current assets for 2013 were \$687.7 million; in 2014 they were \$753.3 million; and in 2015 they were \$785.6 million. Total assets in 2013 were \$1.1 million; in 2014, \$1.2 million; in 2015, \$1.2 million. Assets during this time have been increasing, and Boise has shrewdly been investing in property, plants, and equipment to increase production and sales potentials. For example, in 2013, Boise made an investment of \$102 million by acquiring Chester Wood Products, based in Chester, South Carolina. It produces softwood plywood panels and veneer products. In April 2015, \$43 million was invested into Boise’s Florien, Louisiana, mill. By replacing two dryers, Boise will substantially increase capacity for manufacturing veneer products, add log yard storage space, and boost capacity with new press equipment.

Total liabilities in 2013 were \$651.7 million; in 2014, \$720.9 million; and in 2015, \$713.9 million. As one can see by the numbers given from these totals, there was a gain (as opposed to a loss) for the net income over the last three years. This means the common stock stockholders have been able to receive dividends consistently during this period. If cash had been short, the stockholders would not have been able to receive these dividends but could have been offered deferred dividends or additional shares of stock in place of such dividends. Since knowing what the working capital is can let people know how well the company is doing, one sees for 2013 it was \$36 million. For the year 2014, it was \$32.4 million. In 2015 it roughly doubled to \$71.6 million. This improvement is because of the increased levels of production from the investments Boise has made. The company expects the increases to continue to rise in the future.

Even though there have been profits and dividends given accordingly, as stated in the financial magazine *Barron’s*, Boise Cascade’s “profits fell to \$0.06 a share in the Dec. quarter, down from 40 cents, on flat sales. Plywood prices are falling as supply outpaces housing starts.”⁴ Nonetheless, David Englander wrote in a *Barron’s* article entitled “Nailing Down a Winter” that, “while the U.S. housing recovery has been slower than many expected, the market is far from dormant. After a storm-battered winter, housing

2 Boise Cascade Company Revenue and Financial Data. http://www.hoovers.com/company-information/cs/revenue-financial.boise_cascade_company.9071b745d0000a5a.html

3 NASDAQ BCC Company Financials. <http://www.nasdaq.com/symbol/bcc/financials?query=income-statement>

4 Barron’s. <http://www.barrons.com/articles/a-graphical-look-at-a-sampling-of-stocks-1455944534>

starts rose 13% month-over-month in April, to an adjusted annual pace of 1.08 million, which represents a 17% increase over 2013's level. In 2013, starts jumped 18%. Even after all this activity, starts sit well below the 20-year average of 1.4 to 1.5 million a year.



That means there could be lots more improvement ahead.”⁵ This simply means that the housing market has not been doing as well as it could be over the past few years. The sluggish market combined with harsh winters means one should not look at the numbers so harshly; they will pick up again. Downturns take time to right themselves, which is why investors are patient when it comes to receiving their returns. They are often rewarded for it.

Another reason Boise Cascade has not had a larger cash flow was because it has been in the process of acquiring Georgia-Pacific, LLC, for \$215.0 million because it “wants to bolster its wood products as housing starts to rebound across the nation. . . . [Boise Cascade] plans to apply about \$90 million of its cash reserves toward the purchase. The company is borrowing about \$130 million.”⁶ As reported by GlobeNewswire, a NASDAQ OMX company, “Boise Cascade Company (BCC) has received antitrust clearance from the United States Department of Justice to proceed with its previously announced acquisition of Georgia-Pacific LLC’s engineered lumber facilities. . . . The company plans to complete the acquisition by the end of March 2016.”⁷ The acquisition has now been completed.

Between acquiring Georgia-Pacific, the housing market not being strong, and wood products operating results being negatively impacted by the continued decline in plywood and pine lumber pricing during 2015 and continuing into 2016, profits have not been as high as they could be. Most likely these events will reflect on the next few quarterly earnings reports. Despite this, if someone were to ask me if I were to buy stock in Boise Cascade, I would. It may not look so good at the moment, but like David Englander has said, wait it out. These cycles take time. Yes, housing activity levels may still be below the historical

5 David Englander, “Nailing Down a Winner.” *Barron’s*, June 7, 2014.

6 Idaho Statesmen, December 22, 2015. <http://www.idahostatesman.com/news/business/companies/article51195135.html>

7 Boise Cascade Company via GlobeNewswire, March 16, 2016. <http://finance.yahoo.com/news/boise-cascade-company-receives-antitrust-203202814.html>

average for the past thirty years, but Boise Cascade's stock prices will rise again because "total U.S. housing starts improved 11% in 2015, with single-family starts up 10% from 2014. The February 2016 Blue Chip consensus forecast for 2016 reflects 1.25 million total U.S. housing starts, a 13% expected increase from 2015 levels."⁸ This will translate into greater sales and greater profits. Boise's CEO, Tom Corrick, stated, "We expect the housing recovery to continue in 2016, with U.S. starts for the year projected to be between 1.20 and 1.25 million. Increased housing construction should provide a favorable backdrop for engineered wood products in our manufacturing business, as well as revenue and earnings growth in our distribution business."⁹ In simple terms, the market is rebounding. Sales and profits will increase over time. Patience is the only thing that is needed.

Boise Cascade would not be such a profitable business without its employees working hard for a successful corporation. It has salaried, union,¹⁰ and non-union workers. They get health, vision, prescription, pension, and 401K benefits.¹¹ According to an article in *Woodworking Network*, "We are encouraged by the improved operating environment and remain cautiously optimistic.... That optimism is being felt at the White City Plywood plant, which Boise Cascade is in the process of expanding production since ramping up last winter.... Boise Cascade is looking to add a second shift to bring the plant to capacity."¹² The website Glassdoor lets current employees rate Boise Cascade as a company. Of the fifty-two reviews at the time of this writing, the majority were favorable.¹³ The employees like their co-workers, benefits, and pay. It seems the biggest complaint Boise Cascade workers have is the long hours they have to work. Overall, that isn't bad considering how large of a corporation Boise is.

In short, I would buy stock in Boise Cascade because its future looks promising. The company has had a steady profit for the past three years, has been able to pay dividends, and is amassing more assets to produce more goods and services for its customers. While capital may be short supply with liabilities temporarily high, as the liabilities are paid off and sales revenues continue to be received at a higher rate than the liabilities, this is, as stated, good news for the company and the stockholders since they will still earn profits and dividends will still be paid. As long as Boise Cascade continues along its present course, it will be around for a long time to come, providing high quality goods and services to its customers and cash dividends to its stockholders.

8 Boise Cascade News Release, February 18, 2016. <http://www.bc.com/resources/boise-cascade-2015-4th-quarter-earnings/>

9 Boise Cascade Resources. <http://www.bc.com/resources/boise-cascade-2015-4th-quarter-earnings/>

10 Boise Cascade Case Details. https://www.unionfacts.com/rd/27-RD-01174/Boise_Cascade

11 Health- Boise Cascade. <https://www.bc.com/employees/health/>

12 Rich Christianson, "Boise Cascade Hiring Plywood Workers as Profits Grow." *Woodworking Network*, October 31, 2012.

13 Glassdoor. <https://www.glassdoor.com/Reviews/Boise-Cascade-Reviews-E37819.htm>



RICARDO MEDINA: “I was born in Queens in 1967 but have lived in Brooklyn all of my life. I graduated from Edward R. Murrow High School in 1985 and have been working ever since. For the last twenty-five years I’ve been working as a doorman on the Upper West Side. I decided to pursue a Liberal Arts degree at Kingsborough, which is close to where I live.”

RICARDO MEDINA

BEETHOVEN: HOW TRAGIC EVENTS INSPIRE GENIUS

Music 31 (The Musical Experience), Spring 2016, Professor Dawn Taitt

In this paper I will point out some of the important events of Beethoven’s life, and in illumination of which, I look at the first movements of his First, Third, Fifth, Sixth, and Ninth symphonies. You will find they are dynamic and emotional and encompass a large musical framework that requires a large orchestra. My intention is to show how the tragic events of Beethoven’s life inspired his genius. I have also included time markers that correspond to videos I listed in the bibliography, so that you may follow along with my analysis.

Ludwig van Beethoven was baptized on the 17th of December in 1770 in the city of Bonn, Germany. His date of birth is not recorded, but since it was customary for baptisms to take place within twenty-four hours of birth, it is likely he was born on the 16th of December. The family can be traced back to Brabant, Belgium (Swafford 38). He was named after an older brother who had died earlier and had other siblings, though some did not survive (Swafford 36). Beethoven’s grandfather was a musician for the court of Bonn. His mother Maria was a very soft and tender lady. His father Johann was stern, abusive, and drank often. He tried to instill a musical talent into young Ludwig that he did not get from his father. Johann would sometimes pull his son out of bed and make him play the piano or suffer beatings (Swafford 76).

When Beethoven showed an interest in music his father would teach him piano and violin day and night, often after his return from the tavern. The child would soon prove to be very gifted. By that time Wolfgang Amadeus Mozart (born in 1756) had already become famous and was known to have been a child prodigy. Beethoven’s father envisioned his son to be a prodigy as well. Beethoven would give his first concert on March 26, 1778, when he was only seven years old in Cologne. One story is that his father told the crowd he was six, thereby making Beethoven believe for the rest of his life he was younger than he really was (Swafford 95).

His father proved to be an ineffective teacher, despite working as a musician himself, and so the talents of professionals were needed. Church organist Christian Gottlob Neefe (1748–1798) would become his tutor and would let Beethoven fill in when he was out of town (Swafford 158). He would also teach the young boy both ancient and modern philosophy. By 1782, at the age of twelve, Beethoven was talented enough to publish his first works for piano, 9 Variations in C Minor (Swafford 152). Soon the aristocracy noticed his talents and

he was given financial sponsorship, thanks in part to an article written by Neefe. Beethoven was appointed organist for the court of Maximilian Franz, the Elector of Cologne, in June of 1784. He was 14 years old and was making friends across various social circles. It's said that he always had a sense of responsibility for his two younger brothers and sister (Swafford 303). It was around this time that Beethoven was starting to take over as head of the family, especially since his father was not working as much due to his alcoholism.

Since Beethoven's music showed lots of promise, Prince Maximilian Franz sponsored his trip to Vienna in 1787 in the hopes that he would meet with Mozart and receive instruction from him (Swafford 222). There is no proof they actually met, but in my research I found stories that said Mozart was highly impressed with him and remarked that he would be famous one day (InternsUKmaster 5:00). The Vienna trip lasted only two weeks before Beethoven received a letter summoning him to return home when his mother became ill and was near death. He rushed back to be close to the only person he loved. His mother passed away on July 17, 1787 (Whgh Wamen 9:36). As his father's drinking increased, Beethoven took over the responsibilities of providing for the family.

He would return to Vienna five years later, in 1792, after he was given a grant by the Prince Elector to further his music education. By then Mozart was dead. Friends told him he would receive Mozart's spirit through the hands of Joseph Haydn (1732–1809) (Swafford 295). Beethoven would supplement his lessons from Haydn with extra lessons from other well-known musicians and would prove to be a virtuoso at the piano. He also took to composing and decided he would not work for a church or a court like most musicians. Instead he would work as a freelancer promoting his own compositions. "The prospect of having to earn a living as purely a freelance composer may have frightened him, as it should have. Bach, Mozart, Haydn—none of them had lived mainly on their earnings as a composer. He could sell anything he wrote, but the fees were small" (Swafford 695). To bring in some income Beethoven would play for the aristocracy, but that would also prove to be frustrating. He was known to have a temper and to get angry if people talked during his performances. Sometimes, he would abruptly walk out (Whgh Wamen 15:22). Beethoven would remain in Vienna for the rest of his life and would not return home to attend the funeral of his father. He would only venture out occasionally, mostly to Heiligenstadt during the summer. By 1795 he was well established as a composer, was being published, and was set to take on his first symphony. This is also when his greatest struggles would begin.

Beethoven's First Symphony was completed in the year 1800, and the first movement is written in sonata form, a musical style used in the first movements of symphonies of the Classical period. It consists "of three main sections: the exposition, where the themes are presented; the development, where themes are treated in new ways; and the recapitulation, where the themes return. A concluding section, the coda, often follows the recapitulation" (Kamien 413). The introduction is light and soothing and cleverly keeps the listener in suspense. The first theme of the exposition (Zengraft11 1:46) is lively and is set to a nice pace. The second theme (2:35) is then introduced and has a similar sound. The exposition is then repeated and a slight cadence leads you to the development (5:54) section. Here the first idea retains much of its original content, but the second idea has a different key and gives it a slightly darker tone. Beethoven, having trouble with his hearing, is perhaps showing a hint of an annoyance. A codetta closes that section. In the recapitulation (7:18) we have the return of the ideas, but the second one is slightly longer and more pronounced with some accents. The coda

(9:02) has elements of the first theme. This symphony shows Beethoven's ability to assimilate the great composers who came before him while being original and individual.

Soon the young man would find inspiration in romance but would find the course of love difficult. While he wrote some of his most recognizable pieces for the purpose of wooing a love interest, his failures at finding love would add to his mounting troubles. It is said that Beethoven mostly taught either the very gifted or lovely women (Swafford 403). Despite courting and dedicating music to women, his wish for a family of his own would not come true. Beethoven fell in love often but would never marry. In 1801 he wrote the Piano Sonata No. 14 in C-sharp Minor and dedicated it a year later to his pupil Countess Giulietta Guicciardi (InternsUKmaster 24:36). Originally called *Sonata quasi una Fantasia*, it was renamed the *Moonlight Sonata* five years after his death. Piano sonatas are written for solo piano and this particular one has three movements. Another piece of music, a bagatelle in A-minor named *Fur Elise*, was written for Therese Malfatti, a student he proposed to (Swafford 1230). Bagatelles are short, light, and mellow in character. They are not meant to be difficult and Beethoven often composed them for quick sales (Swafford 1648). Piano Sonata No. 24 Op. 78 is dedicated to the Countess Therese von Brunswick. The piece is often called *A Therese* and it only has two movements. Beethoven searched hard for a wife and wanted a family. He was not successful in love and his worsening hearing loss would make him contemplate ending his life.

Beethoven had been having trouble with his hearing since 1796. By the time he was premiering his First Symphony in 1801 he had already lost about 60 percent of his hearing. This caused him much anguish as he confessed to his friends he was losing the one thing he felt he should have better than anyone else. In 1802 while in Heiligenstadt, he wrote what was essentially a suicide note, except that it shows his resolve to keep composing. He would muster up the strength to get out the musical ideas that were inside of him. He was an artist by nature and his art is what kept him alive (Philharmoniker Fan 23:25).

Beethoven had something near as much courage as a human being can have. From this moment on, without hope and, he feared, without joy, he needed to be heroic just to live and to work. The Heiligenstadt Testament shows that he understood this with excruciating clarity. True heroism is usually called for in the face of suffering and death. It is rarely joyful. But in the letter Beethoven vowed to live with suffering and for his art, and he kept vows like that. His crisis had little observable effect on his output. In his work he had been soaring, and he was about to soar higher. (Swafford 693)

Beethoven very much saw himself as his own hero and wanted to express this in bold and new ways. He was about to turn the world upside down by using the turmoil that was inside of him to make some of the best music ever composed.

In 1805 Beethoven composed his Third Symphony, the "*Eroica*." Meaning heroic, it is twice as long as any symphony composed before it and marks the beginning of Beethoven's middle period, where his expressions of anguish, fear, and pain become loud and clear. It is full of individual expression, powerful emotions, and delves into realm of the unconscious. It is said it is also likely is a reflection of Beethoven's views on Napoleon Bonaparte and the ideals of the French Revolution. While it was originally dedicated to him, Bonaparte, after he crowned himself Emperor, was labeled by Beethoven a scoundrel and tyrant. While the "*Eroica*" starts out very calm and lively it turns horrific in the middle section.

It transitions from altruistic to anguish and struggle before returning to its original theme.

The symphony starts with two chords (MartialVidz 6:55) that are meant to call the audience to attention. It then goes directly into sonata form with the first theme (6:58) in a waltz like three-quarter time. The sound of the first theme is reminiscent of soaring birds. The second theme of the exposition (7:54) has flourishes of violins and hits from the horns and kettledrum similar to the two notes heard in the introduction. There is a slight transition (8:38) that leads to a third theme that is a bit more robust than the first, followed by a cadence. The exposition is then repeated (9:14).

The development (10:05) starts smoothly but (10:47) has a dark ominous tone from the low strings and a solo oboe that is mimicked by the violins and punctuated by bassoon and flute. The brighter sounds from earlier are now full of tension (10:56) and gives the sense of worry and nervousness, but it alternates temporarily back to a slightly calmer sense that everything is fine and can be felt in the clarinet. A new theme is now introduced (11:57) that starts off increasing in tension and volume. It then (12:16) erupts into full on panic with huge dissonant chords. I get the sense of war, hand-to-hand combat and bloodshed. The blaring of the horns has the sound of absolute horror. It also could very much be the horror Beethoven is feeling over his increasing deafness. They give way to 12 orchestra stabs (13:01) that repeat in quarter notes. The dynamics of these stabs are from a medium volume to almost none as if to give the sense of marching or the passing of a troubling moment. Next is the introduction of a fourth theme (13:08) that has a sad and painful sound. Here my sense is the theme represents a hero, but its sound suggests that person is either a witness or a wounded survivor. It can be heard in the solo oboe and a combination of flutes and violins. The first and second themes are then developed a bit further (13:30). They lead to a thunderous cadence that sounds like the end of the struggle for survival or a coming to term with loss. The codetta fades almost to silence but erupts with a roar.

Next, the recapitulation (15:43) has the return of the first theme, played in a different key. The second theme returns (16:24) in a slightly higher key. It starts smoothly but soon becomes very pronounced. There is a slight transition (17:37), a codetta, and then the first theme returns with big accents. Now the second theme is played again. It then transitions to a long coda (19:11) with elements of the fourth theme that sounds pained. Perhaps it signifies reflection on the huge price that is paid in human lives lost to war. The first theme plays once more and finally there is a grand finale to mark the end.

Beethoven, having resolved to carry on despite his troubles, could easily have



seen himself as a hero of his triumph over earlier thoughts of suicide, despair and the horrors of his quandary. While he was initially disgusted by Napoleon's imperialistic actions, he idolized him and the ideals of the French Revolution. I believe the very words used to describe this symphony can easily describe aspects of Beethoven's attitude in this moment of crisis; loud, monstrous, bold, and ambitious. While there are political aspects to this symphony, his Fifth would sound loud, angry, and personal.

Beethoven made his Fifth Symphony out of a motif of four notes that sounds ominous and angry. You can almost imagine them to be anything. Maybe it's a knock on the door. Perhaps it's someone shouting or yelling. It can also be frustration, pain or a lashing out at an ongoing or past situation. This symphony, one of Beethoven's most recognizable works, was premiered at the same concert that featured his Sixth Symphony. While it was received well, it was not a financial success. The tempo is fast and the feeling is brutish, urgent, and forceful. Beethoven is saying something and he is throwing it at you whether you like it or not.

The first movement starts right away with the ominous four notes of the first theme that emphasizes the fourth note by holding it longer and sounds like impending doom or a visit by a debt collector. The second theme of the exposition (Uscarcher 0:45) is low in dynamics and ends with a variation of the first theme. It then gets repeated from the beginning (1:28). The development (2:55) has the first theme, sounds a bit more worrisome, and ends with a repeat of the first theme in a different key. It then leads to a development of the second theme (6:15) that starts in that new key but then returns to the original key. It has a codetta (6:31) that ends the development with a return of the eight opening notes but played drawn out and with force. The recapitulation (7:19) has a solo oboe part that plays softly. The orchestra then returns playing the first and second themes. The coda has the first theme played with ferocity and urgency before coming to a definite and sudden end.

It may be his hearing has gotten so bad that he is expressing anguish and fear over



possibly being totally deaf and the isolation that comes with it. It's as if he wants to grab and shake you in his attempts to make you understand his dilemma. He may also be lashing out at thoughts of his less than ideal upbringing or his failed attempts to find a wife. Though it is this symphony that is synonymous with the name Beethoven, he also composed music that was neither conformist, romantic, horrific, or angry.

While Beethoven's Fifth sounds urgent and compact, the Sixth sounds calm, serene, and expansive. It was played first at the same 1808 concert that also featured the Fifth

and is its polar opposite. The concert opened with this symphony and shows Beethoven's love of nature. It has five movements. The first movement is in sonata form. Beethoven often left Vienna for the countryside and hoped it would help in the release of pressure that may be contributing to his hearing loss. He gave a title to each of the five movements, the first one being "Awakening of cheerful feelings upon arrival in the country."

The first theme has a soothing sound that is reminiscent of a spring morning. The second theme (Mandetriens 1:26) has space punctuated by some solo horns that gives the sense of someone who is listening to the sounds of nature. The exposition (3:00) is then repeated over. Next, the development section (3:55) expands the themes of exposition with longer and brighter violin passages. Listening to it I get a sense of happiness, wonder, and amusement. The recapitulation (6:23) has the repeat of the first and second themes. The coda (8:39) is sweet and ends peacefully. This symphony shows that great music does not always have to sound forceful and controversial. Beethoven always had a tough time finding enjoyment from daily life. He was terrible at managing his own affairs, was messy, and felt increasingly isolated from the world. He wanted peace but not silence. He wanted to hear the sounds that people often take for granted. I imagine he felt he was being robbed of the ability to enjoy the simple sounds of running water, birds chirping, and children playing. Soon he would set off on a quest to make a family with or without a wife.

One important story in Beethoven's life was a long court battle he fought in order to gain custody of his nephew Karl. In 1815 he battled his deceased brother's wife for five years by painting her as morally unfit to be a parent (InternsUKmaster 42:00). He would eventually win custody of Karl but was too demanding with the young boy. Beethoven would drink, live in filth, and wear shabby clothes. He was once arrested for being a tramp. His friends would exchange his clothes while he slept (Whgh Wamen 35:23). Beethoven really loved his nephew and tried hard to make Karl love him in return. Through it all Karl had to endure Beethoven's rough manner of parenting and was even sent away to boarding school as a way to keep him from escaping to see his mother. Beethoven rarely left his apartment and found relief from solitude in his work. By then he had refined his only opera (*Fidelio*), a mass (*Missa Solemnis*), and his Ninth Symphony.

By 1824 Beethoven, who was regarded as the best piano player in Vienna, was no longer performing because of his inability to hear what he was playing. However, when it came to his Ninth Symphony he insisted on conducting it. This symphony is his most ambitious work and is known for being the first symphony to feature a chorus; that chorus is often called the "Ode to Joy." Its themes are of brotherhood and peace. Napoleon's imperial quest for Europe was now over. The French no longer occupied Vienna and the population felt relieved. The first movement brings us back to the idea of a hero whose reign is coming to an end. I feel Beethoven felt disillusionment with the French Revolution and was happy to see its end.

The first movement (Csowebmaster 1:50) is in sonata form. The exposition has a quiet introduction that sounds like the tuning up of an orchestra that rises quickly and goes straight into a strong and stately first theme (2:22) that is mostly in a minor key. It's as if an emperor is coming through and you are told to make way. The rising sounds of the introduction could also be the rising of an idea or a revolution. The second part of the first theme (3:28) is in a major key and leads to the second theme (4:12) that is quieter with a few loud punctuations in the middle section. It is much less ominous than the first theme. The codetta (6:03) is stately in a heroic way and comes to a cadence. The first theme's development (6:56) is in two halves. The first half stays mostly the

same except the swelling notes of the introduction are developed. The second half of the first theme is developed further and gives the sense of internal conflict. The second theme's development (8:45) is steady but retains an urgent feeling. The recapitulation (11:22) ushers in a repeat of the first theme that is played a bit slower and is pronounced by kettledrums. It gives way to the smoother second theme (12:39) that is played a bit sharper. There is a replay of the cadence of the exposition. The coda (14:40) is lengthy and pretty much retains the conflicted feeling of the first theme. It comes to a definitive end.

Some consider this to be his best symphony. His audience showered him with a huge standing ovation at the premiere of the Chorale but he was mostly deaf and had to be turned around by a member of the orchestra so he could see the reaction (Swafford 1757). However, as was often the case for him, it was not a financial success. The first movement, sounding imperialistic, is probably a reflection on Napoleon, now the late French emperor. My sense is that Beethoven is giving a review of the political events of his lifetime. In the fourth movement of this symphony Beethoven gave the audience a theme that is universal in promoting the values of hope, humanism, and good will. The theme is not about looking back at the past, but rather it's looking ahead towards the future. The symphony as a whole is optimistic. Beethoven never conducted an orchestra again, but he kept on composing and hoped to complete another symphony, but the Ninth would be his last.

Not long before Beethoven's death Karl attempted suicide. When found after trying to shoot himself, he said his uncle had driven him to do it (Swafford 1991). Beethoven had already withdrawn from society by then. Soon Beethoven's health would take a turn for the worse and he was confined to his bed with severe abdominal pain. He died on March 26, 1827. The likely cause was a combination of ailments. They took their toll the night of a terrible storm. One story is that there was a clap of thunder that caused Beethoven to raise a fist into the air (Whgh Wamen 40:32). It was as if he put his last energies into that moment in an effort to show he was still alive. I imagine he was giving the final signal to the orchestra in yet another symphony that was playing in his head. His funeral drew an estimated crowd of 20,000. Among the pallbearers was the composer Franz Schubert, who would die the following year and was buried next to Beethoven (Swafford 2053).

One of the things that made Beethoven great was his ability to overcome adversity by coming to terms with the tragic events of his life. He was his own hero and learned to fall back on his passion, his art. He had the will to stay alive in order to express much of what was inside of him and found the strength to look inward for inspiration. His unhappy childhood, his failed attempts to find a wife, his anguish over this hearing loss, his exaltation of Napoleon, and his eventual disillusionment with the ideals of the French Revolution were all catalysts that inspired him. The tragic events of his life were necessary evils. They not only allowed him to express his thoughts and feelings, but they allowed Beethoven to give the world some of the best music ever composed. He was ahead of his time and his music foreshadowed elements of the Romantic period. In essence, he closed the Classical period.

As of this writing, 189 years have passed since Beethoven's death. Today, he remains one of the most loved composers that ever lived. There are monuments and statues of him in parks around the world. To say his music transcends time is an understatement. Launched in 1977, the Voyager spacecraft, originally commissioned to explore the outer solar system, is now headed for interstellar space. It has a golden record affixed to a record player and features the first movement of Beethoven's Fifth Symphony. Perhaps, sometime in the future, an advanced form of intelligent life will find his music to be a good representation of human life on Earth.

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ILHOM ISLOMOV

SHOULD THE SECOND AMENDMENT BE AMENDED?

English 24, Spring 2016, Professor William Rooney

A well-regulated Militia, being necessary to the security of a free State, the right of the people to keep and bear Arms, shall not be infringed.

Change is an inevitable part of life. Although many fear change, it must occur to accommodate the rapid progression of our society. One such change that should occur because of recent events involving gun violence is a change to the Second Amendment. There have been numerous incidents regarding gun violence in the past few years that have led to many innocent deaths and injuries; in order to maintain a civil society and protect domestic tranquility, the Second Amendment must be changed. The phrasing of the Second Amendment itself has caused conflict among advocates of gun rights and those who fall in the spectrum of limiting gun rights to those who do not want anyone to possess guns: "A well regulated Militia, being necessary to the security of a free State, the right of the people to keep and bear Arms, shall not be infringed."

Those who support guns will claim that the "right of the people to keep and bear arms, shall not be infringed" segment of the Second Amendment justifies gun ownership to the people and, conversely, those against gun rights will claim that since there is no longer need for a "well regulated Militia" (the United States now has an army, unlike when the Constitution was written), there is no need for guns to be owned the people. So, since the Second Amendment has caused confusion and worries by both sides of the gun debate (gun control advocates feel that their right to own guns is being encroached upon and is under threat while gun control advocates fear the consequences that come with allowing people to own guns), the Second Amendment should not be changed completely; instead, it should be revised to support and ensure gun limitations and regulations (such as a system of background checks) as well as protect gun rights and the right to bear arms.

There is no question that the United States has a problem with gun violence. In fact, following the Sandy Hook Elementary shooting that occurred on December 14, 2012, the United Nations gathered data from nations of the Organization for Economic Cooperation and Development and found that the United States has more gun-related murders than any

other developed country. The United Nations found that in the United States, “there are over three firearm homicides per 100,000 people; this means that the United States gun murder rate is about twenty times the average out of all the other developed nations that the United Nations compiled data from” (Lupkin). Statistically, this means that Americans are 20 times more likely to be killed as a result of a gun than is someone from another developed country.

Furthermore, the United States has the most guns of any developed country in the world. The number of guns has been proven to correlate to the number of gun-related deaths in a country. Another study, compiled by two New York City doctors, shows the correlation between gun number and gun-related deaths and the damaging effect guns have had on



American society. Based on firearm injury data from the World Health Organization and guns per capita data from the Small Arms Survey, the two doctors found that “the United States has 88.8 guns per 100 people and 10.2 gun-related deaths per 100,000 people. This is the most out of 27 developed countries whose data was also presented; by contrast, Japan has 0.6 guns per 100 people and a miniscule 0.06 gun-related deaths per 100,000 people” (Lupkin). It should be noted that the data compiled does not include the number of illegal guns, so the number of guns in all countries in the study, including the United States, is likely more.

Other studies that prove the correlation of higher gun number resulting in higher gun-related homicides are presented in “Rates of Household Firearm Ownership and Homicide Across U.S. Regions and States,” which found that states and regions that had higher rates of gun ownership also had higher rates of homicides, compared to states with lower rates of gun ownership; in *Private Guns, Public Health*, David Hemenway found that where there are more guns, there is a considerable higher rate of homicides; in *WISQARS Injury Mortality Reports*, it is found that guns were used in 11,078 homicides in the United States; this incorporates 68% of all homicides that occurred in that year. There have been many homicides and mass shootings in the past few years with guns (Columbine, Virginia Tech, Sandy Hook, Isla Vista, etc.). This is similar to the data found in the FBI’s 2013 homicide report, which found that 67% of all murders that year in the U.S. were committed with firearms.

Indubitably, there is a gun problem in the United States; the Second Amendment should be amended to account for the changes in our progressing society, such as the availability of more and newer, more powerful firearms and the realization of mental illnesses and the rise in high-level crimes. In the most developed country in the world, there should not be so many gun-related homicides and gun-related deaths.

One of the reasons for the high number of gun-related deaths is the ambiguity of the Second Amendment, so in order to protect the citizens and ensure peace, the Second

Amendment should be changed to a more clear and understandable form. The amendment should specify exactly what rights the people possess regarding guns and exactly what can and cannot be regulated by the states and federal government regarding guns. If the Second Amendment was rewritten in a manner that elucidated gun rights (for example, if it protected the rights of individuals to own guns for the use of self-defense and hunting) and gun restrictions and limitations to reduce crimes (such as annual background checks and preventing the purchase of certain, dangerous firearms), both the gun-right advocates and the gun-limit advocates would find common ground since rights would be protected and crime would be reduced, with both gun rights and gun regulations being protected. A rewritten, clearer Second Amendment would also lay the foundations for more possible gun regulations by states since gun owners would have their individual gun rights protected. Judge John Paul Stevens served on the Supreme Court for 35 years; as the author of “Six Amendments: How and Why We Should Change the Constitution,” he suggests that the Second Amendment should be amended by adding five words as follows: “A well-regulated Militia, being necessary to the security of a free State, the right of the people to keep and bear Arms when serving the militia shall not be infringed” (Stevens).

Some may argue that the Second Amendment should not be changed because gun regulations are not effective, but there is a clear need to regulate guns. For example, the U.S. Department of Justice concluded that out of 14,285 state inmates, “0.7% obtained the firearm at a gun show, 1% at a flea market, 3.8% from a pawn shop, 8.3% from a retail store, 39.2% through an illegal/street source, and 39.6% through family or friends” (Bureau of Justice Statistics). Since so many people obtain guns other than from legal gun shops, there should be more regulations placed on the way people can obtain guns. Further proof that gun regulations are effective is presented in the Chicago handgun ban, where the Chicago murder rate decreased by 17% after the ban took effect (Barret).

“In a progressive country change is constant; change is inevitable,” said the 19th-century British politician Benjamin Disraeli. This is true concerning the Second Amendment; the framers of the Constitution included the Second Amendment in the Bill of Rights because they feared allowing the federal government too much power and that a national army would pose a threat to the freedom of the separate states; they therefore proposed militias with the right to bear arms. James Madison, one of the primary framers of the Constitution, wrote in *The Federalist* that “the existence of subordinate government, to which the people are attached, and by which the militia officers are appointed forms a barrier against the enterprises of ambition . . . the governments are afraid to trust the people with arms.” During that time, people wanted the right to bear arms because they feared strong central governments as a result of the treatment they received from Great Britain. In contemporary society however, we want the right to bear arms for self-defense and simply because it is a right.

The Second Amendment should be rewritten in order to clarify who can own a gun, what background checks they must go through, and how long they must wait to get the gun. It should also clearly indicate who, for the protection of society (the mentally ill and felons), cannot own a gun. The government should be allowed to regulate what kind of weapons people can legally own. If the Second Amendment was rewritten in this manner, then the amount of gun violence in the United States would decrease. People would know and be assured that their right to own guns is clearly written and cannot be taken away and it would also be clear what types of regulations the government can make. The Constitution has been changed before, there

have been amendments added, removed and changed, so, in order to maintain peace in a changing society and reduce gun violence, the Second Amendment should be revised.

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JOHN JOHNSON: *“As an activist, writer, actor, and Physics major at Kingsborough Community College, I always yearn to explore the boundaries between the sciences, arts, social, and political issues. Knowing that it would take some wit and eclecticism, I attempted that feat with this dynamic essay produced for my English class, hoping that it would provide poignant insight into both nature and reality. Existentialism, along with realism, can often contribute to the holistic picture of reality which I seek to give my readers.”*

JOHN JOHNSON

COSMIC SLEEP

English 24, Spring 2016, Professor Eben Wood

“And after the Earth dies, some five billion years from now, after it is burned to a crisp or even swallowed by the Sun, there will be other worlds and stars and galaxies coming into being—and they will know nothing of a place once called Earth.”

—Carl Sagan

The planet Earth, similar to the human body, is a biological system that houses approximately 8.7 million species. In the abstract, systems are entities that are organized in a specific way in order to carry out a predetermined function. Systems, while they can be divided into subcomponents, cannot function without the coherence of their subcomponents working as a holistic unit. Each individual part of a system is delegated a unique and specific arrangement within the overall structure, which allows the entire entity to function in unison. One example that demonstrates this is the iPhone. Many people anticipate the frequent release of “a new iPhone.” The infinitesimal modifications added to the iPhone somehow increase its value. Inversely, if one considers the history of the iPhone in a backward linear fashion the iPhone’s value decreases with each subcomponent removed from the device. Value, in a systemic setting, is dependent upon that system’s subcomponents, and the value that is ascribed to each component. What is peculiar about the iPhone, and many cellular devices, is the unique history hidden within the design of the cellular device.

Columbium-Tantalite (Colton) is a mineral with a history of its own, but is a part of a larger system of many cellular and electronic devices. In the Democratic Republic of the Congo, many people are harmed, exploited, and afflicted due to wars that persist in relation to the possession of this mineral. How do we determine or attribute value to an object which, when divided into its individual parts, relies upon the heartache and suffering of other human beings? The online retail price for the latest iPhone released is \$399 on the Apple website (not including tax or shipping and handling). But is that what the device is really worth? On June 4, 2016, at the World Science Festival in New York City, bioengineers estimated that the synthesis of a human genome, which serves as the “blueprints” of the human being, can be expected to cost approximately \$90,000,000 in the near future. That would mean that the

human being is worth approximately 225,564 iPhones, an absurd but noteworthy calculation.

The brain, which is one of the main components of the nervous system, comprises approximately one-hundred billion neurons on its own. Neurons are the primary units of the nervous system, and they follow specific routes and circulatory “loops” that help them navigate, acting as a sort of catalyst between the external and internal world of the human being. As humans, we receive information from the external world through our senses, which rely upon the relay of neurons between the senses where information is initially received, up through the peripheral nervous system and the central nervous system (which includes the spinal cord), and finally to the brain, where the information received can be processed and interpreted. In this way, neurons, and the mechanisms by which these larger processes of interpreting information occur, can be thought of as a sort of “translation.” This idea of translation between the external and internal world of the human is one that requires dissection and cogitation. In a time of increasing and overwhelming social and political change and injustice, it is necessary to dig deeply into what it is that we *think* is being reflected within our lives, within society, and on the planet Earth at large. At a fundamental level, that which we perceive through our senses is an illusion of what the brain processes, and what the mind *thinks* is reality. There are basic flaws within the human nervous system that point to weaknesses within our neurological capabilities. Optical illusions, for example, are a great example of how limited our cognitive capabilities are, for when we lack the capacity to process the information received through our senses, our brain will attempt to “fill in the gaps” and create a picture of what we think we are (or should be) seeing. The “missing links” within the nervous system calls our attention to that which fails to be processed by the mind. What is it that the nervous system cannot seem to process? And what information and details are being hidden from our cognizant and physical awareness in plain sight? One needn’t look as far as Rorschach tests and optical illusions in an attempt to discern what is being hidden from us. The answers lie in the world around us, and our internal world. These are the precise ideas presented and explored throughout a novel by W. G. Sebald called *Austerlitz*.

November 6, 2001, marked the publication of Sebald’s *Austerlitz*. Similar to the nervous system and its general theme of translation, the text itself was translated from German into English, making the book widely available for an American audience. That marks the first of many mediated layers within the novel for the reader to dissect in order to see what truth lay behind it. The storyline in *Austerlitz* follows a non-linear pattern unfamiliar to the reader. The structure and style of the novel evoke a “dream-like” quality, forever shifting between moments in the past, present, and future. In fact, the book begins and ends in the same place, much like a three-hundred and sixty-degree circle. The “flow” of the book possesses a quality distinctly different from the world of linear planes and quadrilateral expressions, and instead exhibits a quality similar to that of water. Even down to the very sentences, which run on and on, without end, causing the reader to anticipate the moment in which the sentence will end, only to see that where they’ve stopped, there is only a comma and not a period, and that the sentence seems to be almost infinite (much as this sentence demonstrates). At its core, the book centers around a man named Austerlitz, who goes on a quest to discover that which has been cast in the shadow for some time—his own history, and he seeks to bring that which has been in the dark into the light. Darkness, symbolic in nature, has its subjective meaning to each individual, but in the context of the novel—and with its relationship to the much larger concepts that

will be explored throughout this essay—darkness will be considered as that which is unconscious. Light, the opposite of darkness, is that which resides in conscious awareness, for it can be “seen,” insofar as our senses allow us to perceive. What this book asks of its reader, and the point which I will attempt to press upon you, is to examine closely that which is within the individual, and that which is external to the individual, for inside of us and all that is around us provide glimpses into the past, present, and future.

1967 in Antwerp, Belgium, marks the year in which the opening scene of the book occurs. Before the reader is introduced to the main character Austerlitz, however, we are exposed to the narrator as he stumbles through a portion of a zoo which is called the “Nocturama,” a place where “night creatures” dwell and live during the night as diurnal organisms sleep. As the narrator begins to feel unwell for some unknown reason—a recurring happening and prevalent theme throughout the book—he later finds himself at the “Centraal station,” where the reader is introduced to Austerlitz. He seems to be wandering about aimlessly in a room designated for that exact purpose. The name of the room is *Salle des pas perdus*, which means something like “the hall of useless pacing.” We are introduced to Austerlitz as this sort of mysterious character who is sitting in the waiting room, taking notes, obviously preoccupied with observing the awesome architecture in the space around him. The fascination and interest in architecture that Austerlitz possesses in that instant is an unconscious fetish propelling him through each moment in time. The only way to understand Austerlitz’s fascination and interest is to reflect upon his upbringing, a task that requires deep investigation into the past, and which Austerlitz later accomplishes himself, helping him understand himself and his relation to the world around him.

Prague, Czechoslovakia, 1934, marks the setting in which the main character, Austerlitz, was born under the name Jacques Austerlitz, to his parents Agata Austerlitzova and Maximillian Aychenwald. Austerlitz’s mother Agata was an opera singer and actress, while Maximillian was a public official. A little time before the commencement of World War II, when Austerlitz was only four and a half years old, he was sent alone across the sea on a transportation system called the *Kindertransport*, which translates to the *children’s transport*. After arriving in England via *Kindertransport*, he is inducted into a new family who completely erases his former identity by giving him a new name—Dafydd Elias—and by introducing him to a foreign home. After living with the Eliases for quite some time, he is sent to a boarding school, where he is taught about his true identity regarding his name—Jacques Austerlitz—a name a part of a past life that he had almost completely forgotten about up until that point. It is in this same boarding school, as Austerlitz begins to understand a true part of his identity, that he meets a young boy named Gerald Fitzpatrick, who becomes his servant, or “faggot” (as the younger schoolboys who were servants of the older schoolboys were called during that time period and in the novel), and later a dear friend that matures to become a pilot and studier of animals (particularly birds).

From the moment Austerlitz embarked on the journey leading him into his new identity and life, up until that moment he is an adult wandering aimlessly in the *Salle des pas perdus* of Centraal Station in 1967, Austerlitz possesses almost no knowledge or conscious awareness of that which governs his actions and shapes his world. In many ways, Austerlitz can serve as a sort of surrogate to many people, including myself, who have gone through much of life unaware of the interconnectedness of the past, present, and future. Being the black young man that I am, and living in a society built upon the exploitation of those that have come before me—those that have been removed from their

place of origin and home and relocated via boat to a place in which they were forced to become enslaved and take on a new identity—it is imperative for me to understand how I am viewed today and how that influences the possibilities that lie ahead of me.

Although the Jewish Holocaust occurred during the time in which parts of the book take place, it is imperative to recognize the holocausts and mass exploitations happening elsewhere in the world, and directly across the North Atlantic Ocean that had been occurring in the U.S. since 1619. All events are interrelated, and boundaries imposed by humans such as geographical, generational, and physical do not refute that, for all that exists is a product of the past, without exception. Even now, as I type these words into a mechanical device that links me to the human beings who designed and engineered it, I am also responsible for understanding my connection (and privileged position) in relation to those who are in distress, dying from starvation, and being affected by an unjust political system which was designed by those in the past who sought to ensure their own secure and prosperous future. This book asks us to consider the interrelated nature of things, and this is the true relevancy of the material presented within the text.

THE MUSCULAR SYSTEM

There were 2,245 marine species listed as endangered by the Endangered Species Act (ESA) passed by the U.S. Congress in 1973. Due to improvements in technology following the end of World War II in 1945, fisheries and fisherman acquired new tools for their daily feat of catching fish. Before this immense progression in the technology for fish catching, fish would retreat into the darkness, into their hiding spots where they were safe from danger. But with the advancement of technology came their exposure, and soon enough there was nowhere left to hide, and the only choice was to come out into the light and face the painful future that lay ahead. Relevant to aquatic and marine life is the rising of the sea level, which is projected to rise by approximately 14-32 feet by the year 2100 due to human induced climate impacts, causing whole cities and regions such as New Orleans and the coast of Miami to be swallowed. The rising of the sea level is not just a mere endangerment to human life but a threat to the memory of human existence. As mentioned before, the planet earth is a biological system, analogous to that of a human being, only infinitely more complex. And much like the human biological system, the planet earth possesses an immune system that will eventually rid itself of that which harms it, leaving no trace of the intruder. We often speak about the planet being harmed or threatened, when humans are the ones who are truly threatened. It takes only a moment to imagine enormous waves sweeping through cities and valleys, sinking towns and graveyards, leaving no trace of a past existence of human life.

It is in 1991 when in the novel *Austerlitz* suffers a nervous breakdown which commences his “nocturnal wanderings through London,” eventually landing him on the outskirts of Liverpool Station (Sebald 126). As Austerlitz examines what lies within and outside the station, he recollects the history of the space, recalling that up until the seventeenth century, the area upon which he stood was originally established by a “St. Mary of Bethlehem,” and a hospital “for the insane and other destitute persons” was also established directly outside the vicinity—Bishopsgate—and the hospital’s name was “Bedlam” (129). The definition of Bedlam is a scene of uproar and confusion, a chaotic occurrence, and this speaks to the overall feeling elicited by the Bishopsgate area. Stretching westward from Bedlam was the “bleach-field,” an area where people

washed and bleached their clothing and other household items, erasing traces of things once present, and located near the far edge of the bleach-fields was a churchyard where the dead were buried. This burial ground was filled with the traces of individuals and their skeletons, which either migrated to other spaces or were stacked atop one another if too densely packed. At this specific moment in the novel, Austerlitz is on his way—unknowingly—to uncovering the first clue about himself regarding his past, an event foreshadowed by the symbolism provided by the literal digging up and revealing of skeletons within the burial ground, with skeletons being a direct symbol of the past.

As Austerlitz recalls, “at Broad Street Station, built in 1865 on the site of the former burial grounds and bleachfields, excavations during the demolition work of 1986 *brought to light* over four hundred skeletons underneath a taxi rank” (30). On the following page rests a photograph which Austerlitz says he took during one of his visits to the burial grounds. The photograph displays three lone skulls, and an intact upper-torso of a skeleton with the head attached, whose “expression” seems to be one of joy or laughter, with its jaw wide open and a mouth full of dirt and soil. This striking image challenges one to consider the distorted perceptions between many binaries such as reality and illusion, death and life, happiness and sadness. In the context of reality and illusion, the fact that there are photographs obviously once taken by a real human being, but at once introduced to the retinas of the reader in a fictional book, calls into question what we directly perceive as reality. One may come to believe that the photograph was actually taken by Austerlitz, but this cannot be the case, for Austerlitz is a fictional character, rendering the origins of the actual photograph and its photographer unbeknownst to the individual looking upon the image. The topics of “Death & Life,” and of “Happiness & Sadness,” also intertwine in this photograph, asking the reader to consider these concepts in an unfamiliar way. The laughing skeleton could be implicitly distorting the perception and fear of death that humans have as a sort of “fantasy land” that terminates and demolishes even the best of individuals, a place often frowned upon and where no one seeks to venture if they aren’t inclined to believe in a joyous afterlife for themselves. Yet, the joke may be on those who are alive and who fail to see, as said in the novel, the “thin veil that separates life from death,” for we are constantly living in a world where most information is hidden from us, by both our senses and larger institutions and systems, which prevent us from understanding what truly lies before us. In the end, however, the skeletons and remnants of the past eventually find their way to the “light,” as they rise up out of the ground with a sinister smirk on their face, forcing us to acknowledge our history.

At the sight of the burial grounds, Austerlitz engages in a conversation with an archaeologist, who tells him that “on average the skeletons of eight people had been found in every cubic meter of earth removed from the trench” (130). For centuries a city had grown atop the remains of the dead within the burial grounds, a concept that requires further exploration. What wraps around the skeletal system like a coat is the muscular system that spans almost the entire skeleton. Ironically, this same structure is prevalent within the architecture surrounding the Bishopsgate vicinity. Austerlitz relays to the narrator that “these poverty-stricken quarters were forcibly cleared and vast quantities of soil, together with the bones buried in them, were dug up and removed, so that railway lines [...] on the engineers’ plans looked like muscle and sinews in an anatomical atlas” (132).

FAULTY VISION

The narrator tells the reader that Austerlitz returns to Prague, his place of birth, in 1992, where he discovers his mother's neighbor and close friend who was also his childhood caretaker, Vera. She is one of his few solidified memories from a short-lived childhood. After engaging in conversations of reminiscence, Austerlitz becomes inclined to visit the "Estates Theatre," a place where his mother Agáta made her stage debut in Prague in the role of Olympia (160). Upon entering the theatre, Austerlitz is filled with a sudden feeling of the uncanny, as he recalls feeling as if he had "shrunk to the stature of a little Tom Thumb enclosed in a sort of velvet-lined casket" (161). This feeling of the uncanny, or "gut feeling" as some call it, is that which cannot be explained by science alone. It is unique and distinct to the individual experiencing it—a feeling which calls into question the select few dimensions that the human being is capable of experiencing. These dimensions are often penetrated by the artist, and specifically the actor, whose nature and job it is to flow in-between different dimensions of space and time, becoming a sort of translator for the audience to understand what is occurring within the mental framework of the character being embodied. The very nature in which an actor is able to seemingly become and live within the space and time of another person's life is what frightens Austerlitz as a child, as he recollects he was "afraid Agáta had genuinely changed into someone who, though she might now be a magical figure, was also a complete stranger" (161).

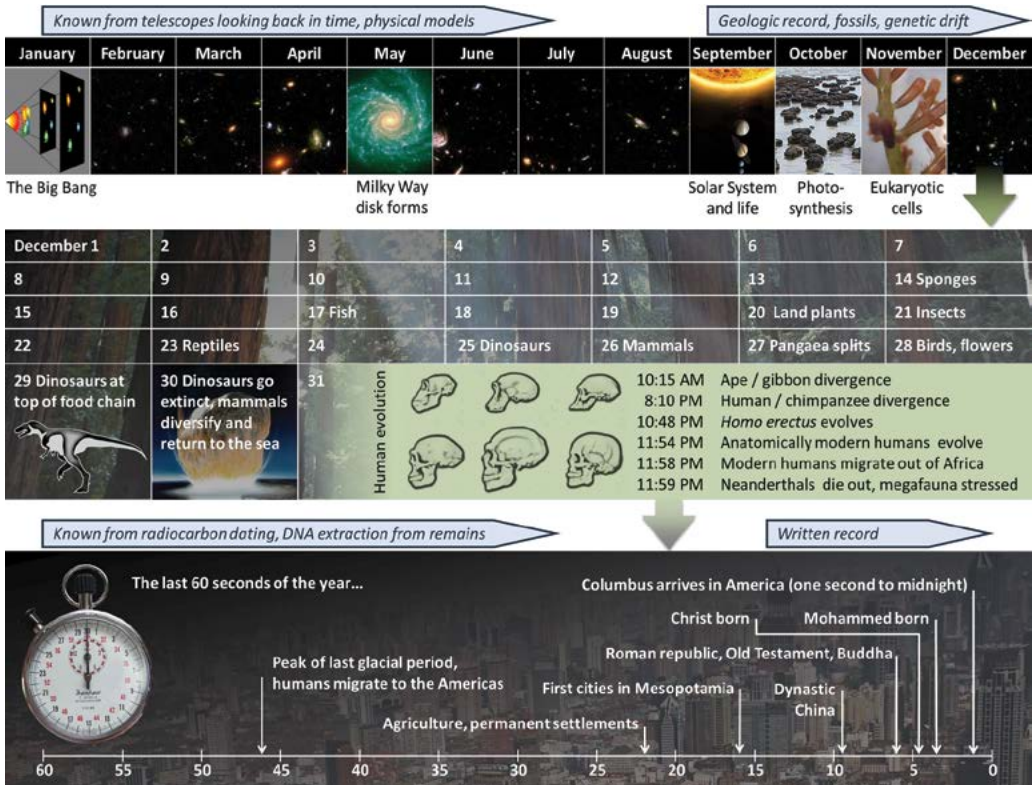
In a very real sense, Agáta was indeed a stranger to Austerlitz, for she ceased to physically exist in his life from the time he was four and a half years old until the end of his life. She becomes a sort of "ghost-like apparatus," a prevalent theme throughout the novel. The idea of ghosts is similar to the previous images introduced to the reader by the burial grounds, which examines the concepts of life and death, wherein the concepts of ghosts also asks us to break "reality" into its binary subcomponents of "familiar" and that which is foreign, other, or "alien." It is in that same Estates theater that Austerlitz spots a "sky-blue shoe embroidered with silver sequins" (161). This sky-blue shoe, juxtaposed with Agáta's role as Olympia, would seem to cast her amongst the heavens, with great reference to the ancient Greek Gods of Mount Olympus. In reality however, the role of Olympia is from an Opera entitled "Les Contes d'Hoffmann," in which the opera singer enacting the role of Olympia portrays the life of a doll, one of the most famous arias being "the doll song." Here we see our human perception fail us once again, as we begin to see how the faulty mind attributes meaning to that which it is able to perceive directly, a perspective that is very limited in many ways. And we can see this faulty vision manifest within Austerlitz both as an adult when he ventures into the Estates theater hoping to retain some "trace" of his mother who is obviously lost to the physical world, and as a child, as he once sat "waiting for Agata to come home, waiting to hear the car bringing her back from *that other world*" (161).

GERALD'S FLIGHT

In 1946, while attending a boarding school at the age of twelve years old, Austerlitz meets (as I mentioned earlier) Gerald Fitzpatrick, who later becomes a close friend of Austerlitz. As Gerald and Austerlitz become more acquainted with one another, Austerlitz is introduced to the Fitzpatricks in their home called Andromeda Lodge. Andromeda, a galaxy named after a great mythological princess, lies approximately 2.5 million light-years away from Earth. The image of stars, as a multifaceted symbol, plays a major role throughout the text. For Gerald, however, 2.5 million light-years could not be any closer, for his fascination with

stars, much like Austerlitz’s unconscious fascination with architecture, is what eventually draws him towards the heavens. Gerald attended Oxford following his graduation from Stower Grange, where he “spent many of the endless hours of study at the school working out an ornithological system based, as its principal criterion, on the degree of a bird’s aptitude for flight,” greatly demonstrating his passion for the heavens, flight, and navigation systems (113). As Gerald begins to discover the unique navigational capabilities of birds, he comes to realize the distinct ways in which birds are able to navigate through the universe using a mechanism or pattern unrecognizable by science. Unlike the *homo sapiens*, whose faulty perceptions and often distorted memories tend to make us lose track and forget our past or history, “you can dispatch a pigeon from shipboard in the middle of a snowstorm over the North Sea, and if its strength holds out, it will infallibly find its way home” (114).

Perhaps it is the study of pigeons which sparked Gerald’s passion for actual flight. Between Gerald’s unconscious fascination with the stars, and the world of the “other,” mixed with the need to feel liberated by the power of flight, this is what ultimately led him to become a pilot, for “the sense of liberation [Gerald] had felt when he first became aware of the lifting capacity of the air beneath him in one of the Cadet Corps planes,



Gerald said, was indescribable” (114). It is in the autumn of 1965 that Gerald returns his attention to the heavens, and begins to develop a theory in relation to the “so-called Eagle Nebula in the constellation of the Serpent,” a cluster of stars and particles that seem to compose themselves into a set of fingers. The symbolic nature of the image of fingers, particularly hands, and stars, are concepts that provide subjective meaning to different individuals. For the Democratic Republic of the Congo, for example, a

star can symbolize the exploitation and enslavement they've been exposed to by the Belgians who drained them of their resources while providing in return the mocking idea of "civilization," a concept that should be familiar to many conquistadors, for example Christopher Columbus, who intruded into North America and destroyed the lives of Native Americans, and to figures like Donald Trump spouting the slogan "make America great again!" Fingers and hands were also symbolic to the Belgians and Natives of the DRC, for very often the white man overseeing a specific site would cut off the hands of those caught "acting foul," or he would cut them in off in an effort to prove to his boss that work was being done and thieves were being caught. For Gerald, the stars symbolized something different, and they were a direct reflection of the ideas taking place within his mind, or as Austerlitz said, "his ideas, like stars themselves, gradually emerged from the whirling nebulae of his astrophysical fantasies" (116).

CLOSING REMARKS: PAYING IT FORWARD

Through a book published by W. G. Sebald in 2001, an individual may look into the role in which our daily perceptions of reality are but mere distorted fragments of what reality actually is. We have examined how the senses alone can cause illusory effects, thereby rendering our perception of reality inadequate, and how larger institutions and structures further distort our perception of the present by disrupting the past and our vision of the future. We have also examined how individuals tend to attribute meaning to certain signs and symbols, reflecting the cognitive and emotional processes occurring within their mind in that moment. Lastly, we have discovered that the true quest, and hope that one can look for in a societal system filled with distortions and misconceptions, is a sense of liberation, which, unlike Gerald's "reality," can be provided by recognizing the latent truth within our collective objective physical and social realities.

While the natural tendency is to let these concepts remain abstractions, it is necessary to understand the reality of these things, and the nature in which they occur. As someone who is personally interested in ideas such as space exploration, sending mankind to Mars and also protecting the environment, all of my interests combined seem but a speck of dust in relation to the very real problems taking place within American society in which many people (including myself) live. Growing up as a young black man in Brooklyn, for a very long time I was an exact product of American society—better known as the white man's patriarchal society. Everything about me, from the way I walked and talked, down to the plasma membranes, transport vesicles, golgi apparatus, rough and smooth endoplasmic reticular systems, nuclei, nucleolus, and Deoxyribonucleic Acid (DNA) within my cells, was structured by the remnants of the way in which my ancestors were mistreated and forced to become enslaved, only to have the backbones of a nation built upon their spines. I was but a digestive tract in the white man's world. I grew up a rebel, but later began to see the light by paying closer attention to the dark; I still fight to bring that same light which I've discovered to those in need.

But "Why," someone might ask, "is your ancestral history so important to you, and why should it matter to others when it has already happened? It's already in the past." The best reply I can give involves the recent case involving a young white Stanford swimmer who raped a woman, and who is only serving three months in a private prison where he is kept separately and safely away from other inmates due to his racial privilege and financial background—this young man's name is Brock Turner. Turner's case is a testament to an

existing racist, supremacist, bigoted, and prejudiced system which has prevailed by the extradition of Africans from their homeland. The victim of the horrific crime committed by Turner spoke of how different the sentence would have been for either a community college student or a black man—two things which I so happen to be. This system in which many of us in America live grants the illusion that we are “okay” and that we can be “happy.” Those little personal moments of happiness we feel should not be taken for granted, for as our cheeks crease at the sides to formulate a smile, someone else’s cheeks are creasing—only to formulate a frown at having been cheated by a system so organized it seems almost analogous to that made by the engineers and architects of the Nazi regime.

In June of 2015, I woke up in the morning and met up with a friend of mine near the Prospect Park train station in Brooklyn. I sat down on a train station bench as she ever-so-gently applied eyeliner to the corners of my eyes. Before we stepped onto our train, she held up a pocket mirror for me to take a glance at myself. I smiled at my reflection, feeling partially transformed without any hair or lipstick to go with my semi-transformed appearance. I stepped on the Q train and met the gazes of strangers. I expected some disapproving stares, being that I was on a train coming from Coney Island, a place I wouldn’t think is too fond of cross-dressers or those who venture out of the small boxes put over us by society. Yet I enjoyed the loving and compassionate glances from those who were on their way to Manhattan, as I was, to attend the LGBTQ pride parade. That day I had decided to introduce myself to a community of loving and compassionate human beings, who accepted those who had patronized, ostracized and tortured them throughout history—and yet they were still able to show an unimaginable amount of love for those who differed from themselves, a feat that many of us, including whole societies and cultures, struggle with today.

The mass shooting in Orlando, Florida, on the Sunday of June 12, 2016, deeply pains me, and should pain everyone, for it is the history of America that has taken the lives of approximately 50 innocent people. The problem isn’t always directly policy, gun control laws, or the “war on terrorism” being propagated by the media. The more direct issue, as we’ve discussed throughout this essay, is failing to recognize the patterns of history within and around us. I mourn for those murdered in that horrific hate crime. This is why I will continue to spread light—for change and justice, and for my ancestors who suffered intolerable acts. I can only hope that with my words I can instill some fear into the engineers of a system which has inclined marginalized people like myself and others toward failure. Why spread light upon that which reels rewards from a dark history? In the words of the victim of the horrific case involving rapist Brock Turner, because—to those who are still currently engineering and maintaining the system which has affected me before even I was born— “You don’t know me, but you’ve been inside me.”

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SANDRA SAINT-SURIN

ETHICS AND THE MULTICULTURAL SUBSTANCE ABUSE COUNSELOR

Substance Abuse Counseling 26 (Confidentiality, Ethics, and the Counselor/Client Relationship), Fall 2015, Professor Joan Standora

Human beings have developed spoken, written, and symbolic language as a system to share messages and meanings known as communication. Communication is what separates the living from the dead. Once communication stops, death is inevitable. Communication is the process by which information, messages, and ideas are shared with others, and that can be verbal as well as nonverbal. Additionally, communication is different among people of different races, ethnicities, and groups. In the counseling profession, communication is pivotal because counselors need to possess exceptional communication skills in order to provide services that are helpful and meaningful to clients. Subsequently, in multicultural counseling settings, the likelihood of miscommunication and misinterpretation is almost inevitable if counselors are not culturally competent. Therefore, poor communication in the counseling field will eventually lead to the death of the therapeutic alliance, which contradicts the ethical principles of the field.

The purpose of this paper is to analyze communication nuances in counseling within multicultural settings and ethical issues that may arise. I first present the case for cultural competence using New York City as an illustration of a multicultural city. Secondly, from an anthropological point of view, I emphasize reviewing literature on multicultural counseling, ethical dilemmas, and multicultural competency. Thirdly, I respond to the investigation, and supporting ideas on the importance of communication in multicultural counseling. Fourthly, I conclude with the research findings and suggestions for moving forward with multicultural counseling.

As of 2014, the U.S. Census Bureau estimated there were 8.4 million people living in New York City (New York City Department of Planning, 2014). The Huffington Post says that 37% percent of our residents are foreign-born and “the city’s foreign-born are now from all over the world” (2013). About 49% of New York City residents are non-English speaking at home, according to a report by New York City Department of Planning (“The Newest New Yorkers,” 2013). This is the reality of most metropolises,

as the world is becoming more culturally diverse. These statistics present the need for anyone who works in cities to be culturally competent. Cultural competence in counseling can be defined as the ability to possess skills required to counsel clients that are of different ethnic backgrounds with respect to their cultural norms and values. The National Institute of Health (2015) states that cultural competency includes “a number of elements, including personal identification, language, thoughts, communications, actions, customs, beliefs, values, and institutions that are often specific to ethnic, racial, religious, geographic, or social groups.” Communication is, therefore, part of the core structural foundation to build a healthy counselor/clients relationship in multicultural counseling.

I examined three scholarly articles that specifically address multicultural counseling and ethics: “An Anthropological Perspective on Multicultural Counseling” by Lawrence H. Gerstein, Clare Roundtree, and Alicia Ordonez (2007); “Immigrants’ Perceptions of Therapists’ Cultural Competence: A Qualitative Investigation” by Frances Melendez, Christie Refano, Lauren Rogers-Sirin, and Yessica Zegarra (2015); and “Ethical Dilemmas in Multicultural Counseling” by Jerome M Fischer, S. G. House, and Maria Sadeghi (2003).

According to Gerstein et al. (2007), multicultural counseling is a concept that has emerged in the last thirty years and has many different theories and approaches in addressing issues and ethical dilemmas that counselors may encounter. Gerstein et al. advocate for an anthropological framework in multicultural counseling because it will aid counselors to understand the cultural context of different people groups. Focusing on understanding cultures enables counselors to better comprehend individuals within their cultural context as opposed to showing it from an individual standpoint. Cultural identity is central to making sense of individuals and it should not be separated from them. Additionally, counselors are able to show respect and appreciation of one’s culture, given that most theories of an individual’s development are derived from “Euro-American ethnocentrism’s domination” (Gerstein et al., 2007, 387).

Individuals who are not of Euro-American backgrounds can face many challenges in counseling, especially if the counselors are oblivious to clients’ cultural values. Melendez et al. have demonstrated that immigrants’ experience with counselors who were not culturally competent resulted in several miscommunications and misconceptions of their clients. The study shows that immigrant populations are more likely not to utilize therapy, because the concept of counseling does not exist in some cultures; therefore, services being offered to this type of population must be effective in creating a positive impression on multicultural clients. The study identified five areas of cultural competence that are culturally sensitive to clients in multicultural counseling: first, being open to learning about the client’s culture; second, using culture in an appropriate way; third, knowing when culture is not related to the presenting issue; fourth, demonstrating patience; and fifth, displaying empathy. The researchers conclude that counselors must show respect for the client’s cultural worldview, minimize their assumption about knowing one’s culture based on reading and interaction with other people of that same group, and most importantly being humble about the lack of knowledge of different cultures (Melendez, 2015).

With counselors’ lack of cultural competence, it is probable that counselors and clients are facing many ethical dilemmas. According to Fischer et al. (2003) these dilemmas can be byproducts of “culture-specific assumptions . . . [that are derived] of what constitutes ‘normal’ behavior, individualism as preferable to collectivism, independence as more desirable than dependence . . .” (2003, 180). Similarly, they discuss that ethical theories also stem from

the Euro-American perspective "... of utilitarianism, Kantianism, and liberal individualism" (2003, 180). This implies that counselors who do not possess abilities to synthesize different cultural worldviews will continue to face ethical dilemmas in counseling clients of different ethnicities. The study has discovered eight culture-related dilemmas that may improve counseling for multicultural clients including conflicts related to: between past and present culture, independence, familial marriage role and traditional value, Western health-practices and "client's cultural beliefs about health," the role of counselors, and counseling practices and cultural practices (Fischer et al., 2003). Those findings can improve the existing codes of ethics for dealing with cross-cultural counseling ethical dilemmas.



Counselors should not try to understand individuals separately from their cultural experience in cross-cultural counseling because most cultures in the world value collectivism. According to the National Center on Secondary Education and Transition, (n.d.) "Nearly three-fourths of the world's cultures can be described as collectivistic" (Continuum of "Individualistic" and "Collectivistic" Values, section, para. 11). In cultural anthropology, individualism is a derivative that can be understood when viewed with collectivism. Individualism is defined as the extent to which individuals mix into a group without losing their identity. The rights of individuals are highly valued in individualistic society, and close knit relationships as well, for example, with immediate family members. Collectivism, on the other hand, is defined as individuals as members of a permanent and interconnected group or organization from birth that lasts throughout their life span. Collective societies value extended families. For this reason, communication style in collective culture is different from that of an individualistic one, and that can pose many ethical issues in multicultural counseling when counselors are not clinically competent.

In the counseling field clinical competence is defined as the counselor's ability to perform professional services by demonstrating critical thinking in the following areas: competence in skills, knowledge, and sensitivity so that the clients can benefit from counseling sessions. However, since most theories of counseling develop from a "Western"

perspective, which are predominantly individualistic and are shaped by the dominant culture, then counselors may lack clinical competence. According to Melendez et al., “several clients felt their therapist viewed behaviors or beliefs that were part of their cultural worldview problematic and this made them feel unsafe” (Melendez, 262). Not only does this type of behavior exhibit lack of clinical competence, it also exposes a counselor’s biases about clients from different cultures. Another issue that may arise is understanding that cultures that value collectivism usually seek counseling within the family and not from strangers. Henceforth, counselors need to create a family-like environment so that clients may be more comfortable to share for the enhancement of the therapeutic alliance.

Hall’s work, *Beyond Culture* (1997), describes culture that can be either high- or low-context. High-context cultures are ones in which it is not easy to adapt, and are more relational; that is, they would rather spend quality time to build relationships than accomplishing tasks; they do not require written contracts when formalizing deals. Communication can be made through unspoken words because it is understood by the in-group, and can be interpreted as passive aggressive. Whereas low-context cultures communicate truth directly and information does not need decoding. They are goal-oriented at the expense of building relationships so contracts are written. For this reason, Sellnow, Verderber, and Verderber (2015) acknowledge, that “effective communication between members of high and low-context cultures can be challenging” (36). Therefore, counselors who do not possess the acumen of high and low-context culture will not be successful within a multicultural counseling milieu. This in-depth understanding of multicultural counseling from an anthropological perspective is the gist of the article by Gerstein et al. (2007).

Since counselors deal with the understanding of human behavior, so in multicultural counseling there is a need to understand that the behaviors that clients display is a manifestation of the culture from which an individual originates. Individuals cannot be separated from their culture in relation to ethics and ethical dilemmas.

The counseling profession can be alien to people who do not have a Westerner’s worldview of counseling, because there are cultures that do not provide counseling. These cultures do not provide counseling since the concept of counseling simply does not exist within that cultural setting. Therefore, providing services to individuals who do not share those kinds of worldviews may result in disgruntlement from both counselors and clients. For that reason, the need for counselors to be cross-culturally competent is extremely important since globalization is the zeitgeist.

Additionally, understanding how cultures communicate is crucial in multicultural counseling. In addition to communicating verbally, there are many cultures that communicate through sign and symbols that are very meaningful to one culture but offensive to another. In multicultural counseling, if counselors are not aware of different communicating styles that exist within different cultures, then counselors who are providing service cross-culturally will continue to face ethical dilemmas. These ethical dilemmas can best be resolved by educating oneself cross-culturally, since one of the Canon of Ethical Principles according to the Office of Alcoholism and Substance Abuse Services (OASAS) (n.d.) is to “...recognize the need for ongoing education to maintain current competence, and to improve expertise in skills.”

It is a counselor’s responsibility to comprehend culture in terms of what it is, and how it works in relation to clients. In doing so, a counselor will learn to appreciate a client’s culture and gain deeper insight into that client’s life. Furthermore, a counselor’s communi-

cating with and understanding of clients will always hail from a cultural perspective because naturally cultures have a profound influence on shaping an individual's view. In multicultural counseling, the therapeutic alliance is woven into both the counselor's and the client's cultural ethos that have been promoted through worldviews that come from cultural experiences. These cultural experiences are foundational in multicultural counseling because it is the primary tenet through which an individual views and understands the world.

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LOBELYS ANICET: *“I am a resilient and dedicated Nursing student. My academic journey at Kingsborough started in the spring of 2014, and will soon be coming to an end as I am set to graduate with the nursing class of June 2017. After Kingsborough, I plan to pursue a bachelor’s and a master’s degree in nursing at SUNY Downstate Medical Center. My ultimate goal is to become a psychiatric nurse practitioner and work for the United States Navy or Air Force.”*

LOBELYS A. ANICET

OBESITY IN AMERICA: A NATURE-NURTURE DEBATE

Nursing 21 (Nursing the Ill Adult), Spring 2016, Professor Barbara Gattullo

Obesity has been an ongoing problem in America across various age groups. There is a major concern especially with child obesity, which can be a precursor for juvenile diabetes (Boyles, 2003). There has been much debate on the factors affecting the rise of obesity in America over the years. Obesity is defined as a condition in which the body contains such a high amount of body fat that it becomes detrimental to the person’s health (Reilly, 2007). Obesity is mainly determined by biological and environmental factors, but the question is which of the two factors has more of an impact in the likelihood someone has become obese. Obesity can become a destructive condition that cannot be overlooked because it is costing many lives each year. Furthermore, weight gain can increase the risk to a vast number of other health conditions such as hypertension, diabetes, sleep apnea (mostly among males), and even social and psychological problems.

According to Norman B. Anderson (2004), the problem of obesity in America is quite alarming because it has dramatically been on the rise in the past 30 years. In addition, it is even more staggering that in 1999, 61% of American adults were considered to be overweight or obese (National Center for Health Statistics, 2004). Obesity does not only affect the adult population in the United States, childhood obesity has also increased. It is not uncommon to find obese children in the US, in particular in families where the mother and the father are overweight as well (Anderson, 2004).

More research still needs to be conducted on this topic in order to find alternative and better ways to combat this obesity epidemic in America. Moreover, there should be more educational programs and funding dedicated to educating people in regards to this topic. However, one thing that the majority of scientists can agree on is that what contributes to the obesity problem is a combination of biological and environmental factors. Even though many studies show that people’s behaviors, their lifestyle choices, and their surroundings strongly increase the probability an individual has of gaining weight, genetics is also a contributing factor that can determine obesity. This problem should be approached and studied from both a nurture and a nature standpoint. This would be the best approach to take in order to implement strategies that will assist American society in overcoming this ever-increasing disorder.

When discussing obesity, the first thing that people think of is the word food. And food certainly is the best friend of many people that have to walk around carrying that excess of body fat. In “Childhood Obesity: An Overview,” John J. Reilly states that even though many people believe that obesity is the result of some hidden problems, that is hardly ever the case. He attests to the fact that the majority of times children become obese because of the amount of food that they consume. Furthermore, Reilly emphasizes that obesity is related to the balance of nutrient intake and the amount of calories being burned; in his belief, this can only happen to those individuals that eat more than they burn (Reilly, 2007).

It is important to mention that sometimes it is not the fault of those children or adults to overindulge with food to the point that it causes them to gain weight. Reilly explains that our society plays a huge factor in the eating habits of children in particular, and even a bigger role in the amount of physical activity that they get. Melissa Abramovitz helps support Reilly’s thesis when she writes that the reason many people become obese is because of overeating and their lack of physical activity. However, she states that the reason why people overeat is mainly because in our society there is an overabundance of food (Abramovitz, 2004). Another interesting phenomenon that Abramovitz discusses is that some people that are considered experts in the obesity problem claim that in the United States a vast majority of schools do not require their students to get involved in the necessary amounts of physical activities.



Many scientists make a clear distinction that it is not just how much food a person consumes that makes him/her gain weight, but also to the type of food, the size, and the amount of times that it is being consumed on a daily basis. Psychologist Grainne Fleming claims that studies have shown that the food choices that people make, and the kind of food they eat, correlates with their weight gain (2011). In other words, when someone chooses to eat a Big Mac instead of a nice home cooked meal, it might cost that person a few extra pounds. According to Anderson, the fact that the cheapest foods in the United States are the ones high in fats and sugar is a considerable reason as to why Americans are becoming so obese (2004). Abramovitz also explains how the types of food people choose to eat can negatively or positively increase their likelihood of gaining or losing weight. Abramovitz says that diets that are high in fats tend to make people more obese than those high in carbohydrates with the same amount of calories (2004).

Another important factor in this problem of obesity is the economic status of the families or the individuals that are obese or are more likely to become obese. There are many Americans that cannot afford to buy healthy food, and this is something that greatly increases their chances of becoming obese. According to Deborah Carr, young adults that are poor are more likely to become overweight than their rich peers (2009). Carr says there is a correlation between the chances the children have of becoming obese and their family's economic status, background, and educational degrees. Although the economic influence in the likelihood that someone has of becoming obese is not greatly supported by many scientists, it is one factor that needs to be taken into consideration and subjected to more research. The reason why is because it is a valid argument that stems from the principle that the more money a family or a person has, the healthier the food they can afford. Furthermore, it is not uncommon to see the cheap fast food restaurants in almost all the neighborhoods where the less fortunate live.

It is extremely shocking that in the United States the majority of people that are obese have to deal not only with the physical burden that obesity puts in their daily lives, but also with the pressure of a society in which being obese is a synonym of being ugly. Obese people get discriminated against and ridiculed just because of their condition. As a result, many of those individuals become depressed and develop many psychological issues that might interfere with their mental health. Abramovitz makes reference to the social and emotional consequences that accompany obese individuals throughout their lives. She explains that in the United States in particular, being skinny or underweight is a sign of prettiness. Consequently, people that are overweight are not considered to be (Abramovitz, 2004). Anderson also writes about the impact that this societal issue can have on people that are obese. He states that overweight individuals are subjected to all kinds of discrimination in many areas of life. In addition, obese people very often are considered to be "stupid and lazy" (Anderson, 2004).

All of the above mentioned are environmental factors that one way or the other are causing America to become the land of the fat instead of the land of the free. However, these environmental influences are by no means the only causes. The biological factors that might increase the likelihood certain individuals have of becoming overweight are more complex than the environmental ones. In most cases, people are not aware of those hidden biological factors that might strongly be influencing their obesity such as a thyroid condition. The thyroid is responsible for various essential functions of the body, but specifically it controls the rate of metabolism. The thyroid can be underactive,

which is also known as hypothyroidism or myxedema. When hypothyroidism happens, a person will gain weight due to the slow metabolism. Certain medications have side effects of weight gain as well. Consequently, many people do not know what is causing them to gain weight even when they are not eating junk. Anderson implies that even though it is clear that genes play a huge role in the susceptibility people have to become obese, little is known about the exact genes that may cause weight gain (Anderson, 2004).

According to Abramovitz, people do not become obese just because of their genes. She acknowledges that genetics just affect the likelihood of becoming obese (Abramovitz, 2004). Even though some genes increase the likelihood some people have of becoming obese, they alone would not make people obese.

Neither genes nor environment alone can cause people to become obese. Scientists disagree when it comes to the level of impact that genes play to make people obese. This disagreement is not evident when talking about the environmental factors, in which the majority agree that it is the type, size, and amount of food people consume, as well as their lack of physical activity, and other cultural and social factors to a lesser degree that contributes to their obesity. Carr argues that even though genetics has something to do with the chances a person has of becoming overweight, the correlation between obesity and genetics is not clear yet. Carr contends that the rapid increase in children and young adult's obesity serves as proof that gaining weight has other factors besides genetics (2009). Reilly supports Abramovitz's point of view about genetics and obesity when he writes that the causes of obesity that people cannot see are not easy to comprehend. As a result, they go beyond the control of any family with an obese child (Reilly, 2007).

Although genetics might not seem an easy concept for people to grasp and remain unclear to them, genes do play an important role that might lead to some people's obesity. Grainne Fleming writes about specific genes and hormones that might stimulate behaviors in people that cause them to become obese. One example is the hormone melanocortin. According to Fleming, melanocortin enhances the amount of time people eat when there is not an adequate amount of it, which causes them to gain more weight. He also mentions the gene leptin; increased appetite or the desire to eat at all times might be caused by a mutation in the leptin gene.

Even though genetics and the environment determine who becomes obese and who does not, it becomes clear that the environmental factors play a more significant role because genes alone would not make a person obese. According to Mary Lowth, many healthcare professionals are encountering many obese patients that are angry and frustrated because so little is out there to help them overcome their condition (2013).

Looking at this obesity issue from both a nature and a nurture standpoint, and by analyzing what others have found regarding this condition, it is obvious that much more can be done in our society to fight this disease. First and foremost, Americans need more education related to what obesity is, about the physical and emotional problems that might develop because of it, and, most importantly, how to prevent it. Many people do not know what a calorie is or how many calories to intake on a daily basis, or what are the necessary nutrients that their bodies need in order to keep them healthy and alive. Furthermore, once obese, many people do not know how to deal with their condition or what are healthy options they have to help them lose weight. In addition, obese people need to be given more support and empowerment from our society and their loved ones. It is extremely difficult to fight a disease especially when the whole world is judging and blaming you for it. Fighting obesity in America will require a

collective effort that has to start in the home and then spread out to every domain of life.

Last but not least, physical activities and healthier diets need to be part of people's daily lives. Not only will it help them prevent the weight gain, but it will also allow them to live a more happy and healthy life. This is where local community organizations and the American government should be focusing their efforts to fight obesity. Healthier and not too expensive foods should be available to all Americans. Furthermore, the government should spend some of the millions of dollars that comes out of the pockets of taxpayers every year and use them to fund more physical activities programs in schools, colleges, universities and neighborhoods. If the right steps are taken to combat this national epidemic in America, the obesity numbers could start to decline.

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MAYYA LEBEDEVA

DIABETES TYPE 1: NURSING'S ROLE IN IMPROVING A PATIENT'S INSULIN THERAPY

Nursing 21 (Nursing the Ill Adult), Spring 2016, Professor Diane McDevitt

BACKGROUND

Diabetes mellitus (diabetes) is the fastest-growing lifelong disease that affects millions of people worldwide. Let us consider some statistics. “The first WHO Global report on diabetes demonstrates that the number of adults living with diabetes has almost quadrupled since 1980 to 422 million adults” (WHO, 2016). According to the New York State Department of Health, in 2010 in the United States, 25.8 million people, or 8.3% of the population, had diabetes. Of these, 7.0 million had undiagnosed diabetes. In 2014, the National Diabetes Statistics Report indicated that “the total number of 29.1 million people or 9.3% of the population, had diabetes. Of these, 8.1 million people were undiagnosed” (ADA, 2016). The data show that for a 3-year period, the number of people with diabetes increased by 3.3 million people! About 1.9 million new cases of diabetes were diagnosed in the population over 20 years. It is said that “if this trend continues, 1 in 3 Americans would be diabetic by 2050” (News Medical, 2016). These frightening facts show the necessity to continue thorough research on diabetes in order to find out new ways to prevent it, and to improve known methods of managing this disease.

Diabetes is a condition characterized by hyperglycemia resulting from the body's inability to use blood glucose for energy (ADA, 2014). Over time, having too much glucose in the blood can cause many health problems. “Diabetes is the leading cause of new blindness, kidney disease, and amputation, and it contributes greatly to the state's and nation's number-one killer, cardiovascular disease (heart disease and stroke). People with diabetes are more likely to die from flu or pneumonia” (Department of Health, 2016). In general, pulmonary infections in diabetes mellitus are characterized by longer duration and more frequent complications because of the host's decreased ability to combat infections. This is a nurse's responsibility to teach the patient how to avoid infections and improve the prophylaxis.

There are two types of diabetes – type 1 and type 2. Type 1 diabetes is called insulin-dependent diabetes mellitus and occurs at a younger age or childhood. In patients with type 1 diabetes, there is a lack of the hormone insulin. Blood glucose cannot enter

the cells to be used for energy. In this case, the injection of insulin on a regular basis is a required treatment. In type 2 diabetes, “either the pancreas does not make enough insulin or the body is unable to use insulin correctly” (ADA, 2014). Research studies have found that moderate weight loss and exercise can prevent or delay type 2 diabetes among adults at high risk of diabetes. “The Diabetes Prevention Program (DPP), a major federally funded study of 3,234 people at high risk for diabetes, showed that people can delay and possibly prevent the disease by losing a small amount of weight (5 to 7 percent of total body weight) through 30 minutes of physical activity 5 days a week and healthier eating” (CDC, 2015). The patient’s education by the nurse plays an important role in diabetes prevention. The nurse should apply different teaching strategies according to the patient’s ability to learn and help the patients to delay or even prevent type 2 diabetes.

Unlike type 2 diabetes, there is no known way to prevent or treat type 1 diabetes. “There is lots of promising research, but it is still in the research stage. Some of the initiatives involve targeting the cells in the immune system that cause the autoimmune response. Other possibilities include the use of stem cells or pancreas transplants” (Iliades, 2012). The researchers continue to examine other possibilities to treat diabetes type 1. “New clinical trial results show that transplantation of pancreatic islets—cell clusters that contain insulin-producing cells—prevents severe, potentially life-threatening drops in blood sugar in people with type 1 diabetes” (NIH, 2016). While the research still continues, the treatment of choice for the patients with type 1 diabetes is insulin therapy. The monitoring and successful managing of blood glucose levels within a satisfactory range is paramount for such patients to survive. However, intensive insulin therapy causes severe hypoglycemia, despite glycemic control, because it is hard to choose the right dose of insulin for the body’s constantly changing insulin requirements. Because of these discrepancies, it is hard to maintain a blood glucose level within the normal range. Fluctuation of blood glucose level from extremely low to extremely high is harmful for all of the body systems.

Hyperglycemia, if untreated, leads to life-threatening conditions. Low glucose level can cause severe hypoglycemic episodes which are life-threatening also. The right amount of insulin needed to control blood sugar is supposed to be adjusted individually to every patient according to a number of factors like diet, weight, co-morbidities, lifestyle, activity level, and so on. Patients are supposed to meet with a doctor or nurse regularly to review blood sugar levels and insulin dose. In addition to that, many patients are able to adjust their own insulin dose. Increased physical activity allows patients to decrease the dose of insulin and to make their insulin therapy less intense and harmful. “The implementation of a systematic and conducted moderate intensity exercise program reduces the frequency and severity of hypoglycemic episodes, under a flexible insulin treatment scheme and a permanent adjustment of carbohydrate intake, leading to a long-term metabolic balance in patients with type 1 diabetes” (Branea, 2013). During physical activity, the body’s insulin demands decrease because exercise allows glucose to enter the muscle cell for immediate use. In other words, exercise acts in a similar way to insulin itself. Frequent monitoring of glucose level is required during adjustments to the dose. Patients are supposed to be cautious when blood glucose level drops too low, and “should be advised not to undertake prolonged intense exercise after severe hypoglycemia” (Graveling et al., 2010). Because of the complexity of diabetic disease, the nurse should provide the patient with education and insure the understanding of the abnormal signs and symptoms which can lead to life-threatening conditions, and teach the patient how to avoid them.

The dose of insulin to a significant extent depends on a patient's diet. "The patient is asked to know carbohydrate counting for insulin-dose adjustments. Theoretically, the task of matching insulin doses to carbohydrate intake can be accomplished at both meals and snacks. Practically, there are many problems and issues. Although there is a close relationship between the amount of carbohydrate in a meal, pre-meal short-acting insulin requirement and post-meal blood glucose response, not all types of carbohydrates are fully metabolized to blood glucose" (Matteucci and Giampietro, 2015). It is hard to calculate accurately calories that the patient consumes during meals because, for example, not every food has a label on it, as well as other reasons. The huge variety of the metabolic processes in the body can make the correction on how much glucose the body had accepted, and, consequently, it is hard to estimate the proper dose of insulin. Nevertheless, the nurse should help the patient to read the labels in order to be consistent with the patient's dietary requirements. "Moreover, there is a considerable intra- and inter-individual variability of the absorption and metabolic effect of subcutaneously injected insulin. Physical activity is also highly variable from day to day, and people with type 1 diabetes have to adjust carbohydrate intake and insulin dosage to avoid hypoglycemia" (Matteucci and Giampietro, 2015). The nurse should teach the patient to follow the doctor's recommendations and be accurate with the medication regimen. The nurse's responsibility is to help the patient to understand the doctor's recommendations on how to adjust the dose of insulin to the patient's lifestyle, and, particularly, to the patient's physical activity.



CASE STUDY

A 79-year-old female with a history of type 1 diabetes for more than 50 years suffered episodes of severe hypoglycemia and subsequent comas for the last two decades. The patient shared that during this period, she could suddenly feel weakness and lose consciousness on the street, or wherever she was, and find herself in the hospital. Following the doctor's prescription, she was taking 30 units of Lantus once a day and 6-10 units of Humalog

twice a day during this time (around 50 units per day total). The patient began to walk, increasing distance from “around one block” to “around five blocks” on a regular basis. She noticed that she began to feel better, and tried to decrease her dose of Lantus. Under close monitoring of the glucose level, she continued to walk and to do light morning exercises every day. She continued to decrease her dose of insulin, and she realized that she does not experience deep hypoglycemia as she had earlier. The patient’s primary physician has approved such a lifestyle and encouraged her to keep exercising and monitoring.

As prescribed by the doctor, the patient takes Lantus Solostar (insulin glargine injection) 100 Units/mL, 3ml prefilled pen (origin Germany). It is a long-acting form of the hormone insulin (rDNA origin). Humalog KwikPen (insulin lispro injection), 100 units per ml, 3 ml, USP (rDNA origin) is prescribed as a fast-acting insulin. Because of long lasting diabetes, the patient significantly lost vision; therefore, the doctor prescribed her prefilled pens. Prefilled pens “are specially designed so that patients with diminished eyesight or tremors can still use them, and some are especially designed to make administration easier for people with limited dexterity or vision” (Fowler, 2008). The patient managed to decrease the dose of Lantus to 18 units now (compare to 30 units), and the dose of Humalog to 6-8 units (around 34 units per day total). We see the difference of 16 units of insulin, which the patient does not need, because of physical activity substitutes this dose. During the day, when the patient cannot do physical exercises due to different reasons, she definitely needs to increase the dose of insulin. However, the increased dose is not as high as it was before the patient increased her physical activity.

This case study shows the steps how it is possible to decrease the dose of insulin, which is beneficial for the patient’s health. The nurse’s role is to help the patient on each of these steps, including monitoring the patient’s blood glucose level and the patient’s condition in order to avoid the drastic fluctuations of a blood glucose level. It is extremely important to keep the same regimen of physical activity every day. Otherwise, after a day of minimal physical activity, blood glucose level can elevate the next day. Lack of exercise can cause significant unpredictable fluctuations of blood glucose level in patients who are accustomed to a particular level of physical activity. Physical activity is beneficial for health by itself. But besides an overall improvement of health, the patient is not experiencing profound hypoglycemic episodes anymore. The patient stated that even though her blood glucose level drops to 46, she does not lose consciousness. She feels dizziness, confusion, fatigue, and weakness, but she is able to react adequately and undertake the measures such as eating sugar containing food, or drinking tea with a little amount of sugar. However, the patient can become unstable during such episodes. The nurse should teach the patient to ask for help from the family members, or anyone who is near the patient.

Even though the patient is able to manage her hypoglycemia during the day when she is awake, it becomes a problem when her blood glucose level drops down low during the night, in so-called nocturnal hypoglycemia (NH). The interesting fact is that the patient does not experience a coma. During such episodes, she is confused and feels weakness, but she is able to move, to talk, and to follow simple directions. Likely, these episodes happen because the patient administered more insulin than the body needs, or because of an inadequate food consumption. But, sometimes, the reason for these instances of NH is not obvious. Definitely, if the patient had administered a higher dose of insulin, or if she had eaten less food, a mild hypoglycemia would have become much more severe. The nurse should teach the patient who experiences

NH to eat a snack before bedtime. Even if a blood glucose level will increase over the normal range during the night, at least the patient will avoid hypoglycemia. "Although a bedtime snack containing carbohydrates and a source of protein is regularly suggested in clinical practice and frequently used by the patients, the usefulness and optimal composition of the bedtime snack is still unclear" (Desjardins et al., 2014). Basically, the patient has to adhere to the dietitian's and physician's dietary recommendations. Besides teaching the patient how to prevent NH, depending on a case, the nurse can recommend the patient to contact a home health agency and apply for home health aide service.

CONCLUSION

This research project highlights the nurse's role in teaching patients how to improve their insulin therapy which leads to overall improvement of patient's health condition. "Professional nurses cultivate caring relationships with their patients, supporting them in meeting their physical, mental, and spiritual needs related to health" (ANA, 2016). The nurse helps patients understand the importance of physical activity; in particular, the nurse explains how the increased level of physical activity can help to decrease the dose of insulin. The nurse should teach the patients how to monitor their condition, and how to recognize the signs and symptoms of life-threatening complications. People with type 1 diabetes should be advised to adjust the dose of insulin according to the increased level of their physical activity, which leads to overall improving their health condition, and the elimination of profound hypoglycemic episodes.

"The National Diabetes Education Program (NDEP) maintains an online resource (www.betterdiabetescare.nih.gov) to help health care professionals to design and implement more effective health care delivery systems for those with diabetes" (ADA, 2016). Appropriate literature should be provided in doctors' offices and other medical facilities. Primary physicians should encourage patients to practice a healthy and active life-style as much as possible, which can help them with diabetes therapy.

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ANNA LIM: "I was born in Russia and lived there for seventeen years. After successfully passing exams in biology and chemistry, I was going to go to medical school. But suddenly everything completely changed and my family moved to the United States. I started my new career path at Kingsborough Community College. My major is Chemistry, which I have always loved, but I was scared to imagine it as my future profession. After getting my associate's degree, I am planning to transfer to City College and finish a bachelor's degree in chemical engineering. I am interested in working in biomedical technology, the chemical process industry, and with advanced materials."

ANNA LIM

SYNTHESIS AND CHEMICAL ANALYSIS OF DIETHYL 2, 3-BIS(FLUORENYLIDENE)SUCCINATE

Chemistry 12-W04, Winter 2016, Professors Aleksandr Gorbenko and Homar Barcena

PREFACE

In my work, I explored a new method to synthesize a molecule that has a helical structure and fully characterized it. Helical structures are important because these are prevalent in DNA, peptides, and sugars. They could also have various applications in catalysis, helical polymers, and supramolecular chemistry. My target molecule has axial chirality and can be resolved into enantiomers, which are the two mirror images of the molecule. The synthesis was completed in 84 % yield and the product characterized by ¹H NMR, ¹³C NMR, FT-IR, and mass spectrometry.

ABSTRACT

It has been previously reported that 2, 3-Bis-fluoren-9-ylidenesuccinic acid can be resolved spontaneously into conglomerates via incorporation of achiral substances into their crystalline structure.¹ In our study, we want to develop a new method to synthesize diethyl 2, 3-bis(flourenylidene)succinate (from 2, 3-Bis-fluoren-9-ylidenesuccinic acid and dimethyl succinate via aldol condensation), elucidate its structure, and investigate its ability to form homochiral inclusion crystals. This study consists of two phases. In first phase, the diester 2 will be synthesized and its structure will be confirmed by analytical techniques such as NMR, MS and IR. During the second phase, the crystals will be tested for their enantiomeric purity.

INTRODUCTION

Induced spontaneous resolution via achiral guest inclusion is one the easiest, albeit rare, methods in organic chemistry, by which a racemate, a mixture of equal quantities of left and right handed molecules, can be separated into pure enantiomers. This simple and cheap procedure can occur if a molecule has the ability to form chiral domain, which is a geometric property of asymmetry.²

In addition to homochiral inclusion crystals (conglomerate), 2, 3-Bis-flouren-9-ylidenesuccinic acid 1 may form heterochiral inclusion crystals (racemate) which contains left- and right-handed helical enantiomers (M-1, P-1). The diester molecule 2 was formed from the Nucleophilic Substitution (Sn2 mechanism) reaction of 2, 3-Bis-flouren-9-ylidenesuccinic acid with ethyl iodide in the presence of a base and a polar aprotic solvent. The purification of the crude material was performed by recrystallization technique.³ The final crystalline product contained no inclusions. During the feasibility study, a low product yield of 20% was obtained. Consequently, the initial procedure had to be optimized to address the low yield. Changing the nature of the base and the solvent increased the yield by 64% (final yield: 84%).

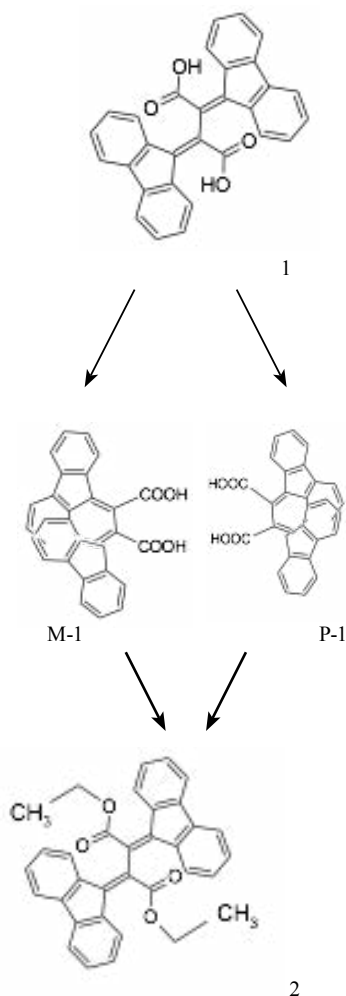


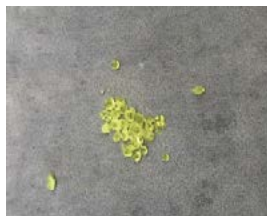
FIG. 1

EXPERIMENTAL FEASIBILITY STUDY PROCEDURE:

2, 3-Bis-flouren-ylidenesuccinic acid (1.2 g) was mixed with acetonitrile (50 ml), triethyl amine (1.3 ml), ethyl iodine (1 ml) and refluxed for 24 hours. After cooling down to room temperature, the mixture was poured into the cold distilled water (100 ml), vacuum filtered and rinsed with water. The sample was air dried and recrystallized with acetone (Figure 3). The procedure yielded 20% of the final product.



FIG. 2 SYNTHESIS 2: REACTION IN GLYCEROL BATH

FIG. 3 SYNTHESIS 1:
CRYSTALS WITH IMPURITIESFIG. 4 SYNTHESIS 2:
PURE YELLOW CRYSTALS

OPTIMIZED PROCEDURE:

2, 3-Bis-flouren-ylidenesuccinic acid (0.5 g) was mixed with cesium carbonate (0.74 g),⁴ ethyl iodide (), dimethyl sulfoxide (10 ml), and reacted between 60°-75°C for 1hr.⁵ After the reaction, the mixture was allowed to cool to room temperature. The sample was precipitated out of the solution by slow addition of water. The crude was collected via vacuum filtration and recrystallized with acetone (Figure 4). The final yield of 84% was obtained.

RESULTS AND DISCUSSIONS

The reaction under the study follows Sn2 mechanism (substitution nucleophilic bimolecular) and factors such as nucleophilicity, steric hindrance and solvent polarity largely influence the reaction rates. Therefore, the higher yield can be achieved from optimization of the aforementioned reaction conditions. Since diacid and triethylamine are both bulky molecules, the approach of one by the other to remove the acidic hydrogen is diminished due to the Van der Waal repulsive forces. To abate those repulsive forces, the organic base was replaced with the smaller inorganic base, in this case cesium carbonate.

Moreover, during the Sn2 reaction, the activation energy complex at the transition state is highly polar. Consequently, the solvent with higher polarity will have a greater stabilization effect on the activation energy complex lowering its potential energy. This

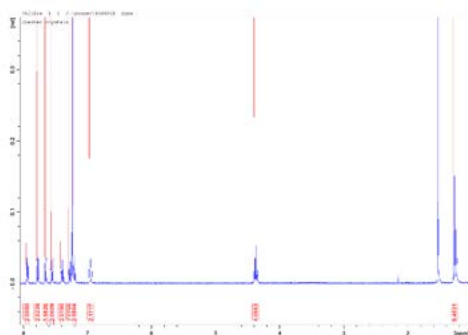


FIG. 5

greater stability of the activation energy complex is evidenced by the higher reaction rates. Therefore, a replacement of acetonitrile solvent (less dipole moment) to DMSO solvent (higher dipole moment) resulted in a reduction of reaction time from 24 h to 3h.

The structure of diethyl 2, 3-bis(flourenylidene)succinate was confirmed using $^1\text{H-NMR}$, $^{13}\text{C-NMR}$, MS and IR techniques. The diester molecule contains a total of 26 protons, 16 of which belong to the aromatic rings of the molecule and 10 in aliphatic region (Figure 5).

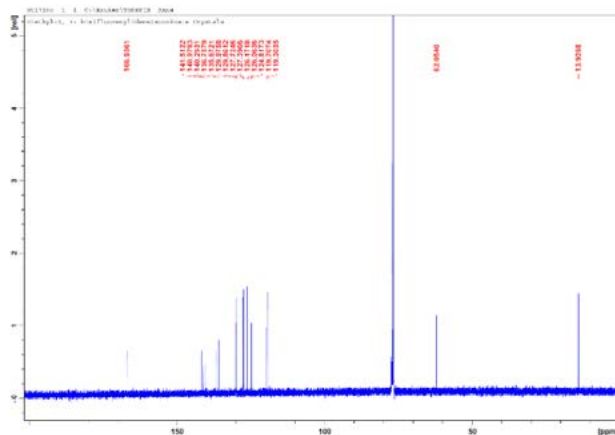


FIG. 6

The $^{13}\text{C-NMR}$ contains 14 carbons in the aromatic area and 6

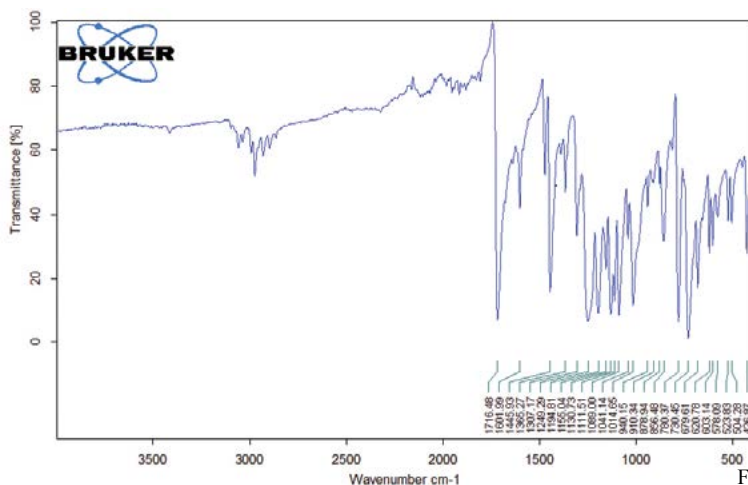


FIG. 7

carbons belonging to the ester functional group (Figure 6).

The aromatic region and characteristic stretching of the carbonyl groups were confirmed by IR frequencies of 1600 cm^{-1} and 1716 cm^{-1} respectively (Figure 7). Whereas the disappearance of the broad OH peak in 1 confirms the functional group transformation to the ester 2.

The Mass Spectrometry confirmed the molecular mass of the synthesized compound. The expected mass is 498.15 amu. The mass spectrum (Figure 8) shows a very close result of 498.18 amu as well as a sodium adduct (521.18 amu).

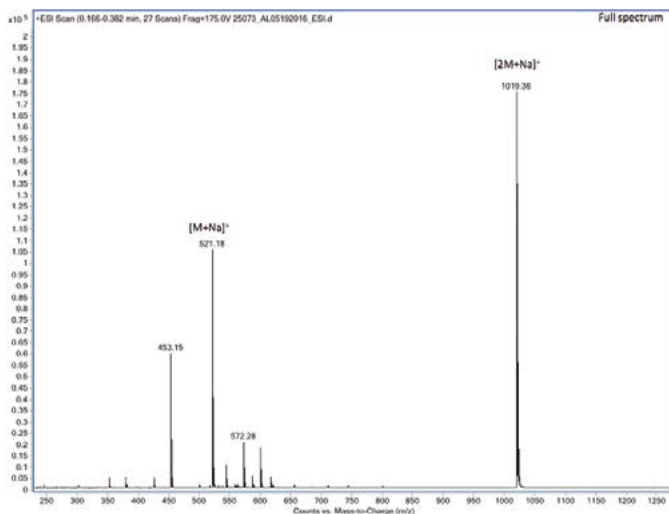


FIG. 8

CONCLUSIONS

In this study, diethyl 2, 3-bis(fluorenylidene)succinate was successfully synthesized and purified by crystallization. The optimized procedure is higher than reported in literature, and the reaction was faster. The molecule was fully characterized by NMR, IR and MS techniques. Unfortunately, the enantiomeric purity of the sample could not be performed due to the limited research resources at KBCC.

ACKNOWLEDGMENTS

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The Spring 2017 issue's submission deadline is February 1. The deadline for submissions for the Fall 2017 issue is August 15.

—Bob Blaisdell



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