

Distinctions

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Distinctions, the journal of the Honors Program of Kingsborough Community College of the City University of New York, welcomes submissions of scholarly articles written for Kingsborough courses and creative work produced for Kingsborough courses that explore aspects of academic endeavor.

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COVER ART

Trump and Dog by Joshua Berg

Drawn for Professor Valerie Sokolova's Illustration course (Art 6800)

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EDITOR'S NOTE

It seems to have been an unusually tumultuous year for Planet Earth, and so I honor, on our cover, the life-form most responsible for that tumult... No, not the dog. The portrait's artist, Joshua Berg, reveals something comic and personal I haven't seen caught by other artists. After viewing Mr. Berg's artwork, I started to feel that *all* the pieces I selected for this issue, even the interesting chemistry article by Cleavon N. Harris and the math article on linear recurrence relations by Raquel Akiva, were influenced by He-Who-Shall-Not-Be-Named. That influence is an illusion, but I can't get free of it, and I can't help seeing a reaction to the historical moment in this issue's loud calls for social justice in essays by Frank Orefice, Ricardo Medina, Lilya Rustamova, Kelly J. Worthington and Kira Charles. But again, probably that's an illusion, because there are several longstanding and not necessarily American issues discussed in those pieces. Iris Nolasco and Alicia Ramos have written engaging pieces about education; Amanda Morgan has investigated, first-hand, two forms of yoga; and Lester E. D. Cook has argued a strong position on health care. In an essay worthy of its subject, Crystal Rose has discussed her relationship with the American author Dorothy Parker.

For the attractive and skillful artwork I have Professor Valerie Sokolova to thank. She submitted work by the students in her Experimental Typography and Illustration courses. Alexander Richardson and Jessica Cameron have contributed their clever typographical experiments, as has Junliang Zhu, who is making his second appearance in *Distinctions*.

I am grateful to the Director of the Honors Program, Homar Barcena, who has given me and the journal his encouragement and support. I also owe thanks to Aba Agolli, the Assistant Director of the Honors Program, who helped with rounding up the submissions. We are all indebted to Provost Joanne Russell for funding the journal. Special thanks to Dr. Eileen Ferretti, the chair of the English Department, for granting me the time to act as editor. I again acknowledge my appreciation of Janine Palludan, the Executive Assistant to the Associate Provost, for arranging the budget and contracts. Finally, I thank all those who over the past dozen years have designed, promoted and edited *Distinctions*. Without their work, this issue would not exist.

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How to Educate

Yehudis Milchtein

Spring 2017

EDC 200 | Social Foundations of Education

Professor Eliza Decker

Why learn? The question every child asks at some point in their life. Why learn about math, history, biology, and science? The answer may seem simple, sometimes no more than a “because” from a teacher. However, the answer is woven from our natural instinct to do, to survive. An education is not to simply teach my students to survive, but to thrive. Students should be given the background necessary to create the life they choose to one day.

In the words of Herbert Spencer, “The great aim of education is not knowledge, but action.” What can be done to impact a student in such a way that as he grows, he lives his education? There are as many methods to schooling as the number of people there are, every person learning in a unique way. The root, the very core of how education is accomplished can be split into two separate, yet remarkably interwoven ideas: a social/emotional aspect and an academic one. A balanced education based on strong social/emotional and academic standards empowers children, creating thinkers who lead fulfilling and productive lives.

I have 13 younger sisters and brothers. From a young age, I had a nurturing role in my family, and as I grew older I directed those feelings towards education. This paper covers some topics that are in line with my philosophy on teaching, as well as bringing in new ideas and researched methods. It begins with a definition of what a social/emotional and academic education are. This continues into a discussion on the benefits of practicing both in terms of a child’s future. Next, case studies on the merits of a social/emotional and academic education individually are brought in. Examples of applying both in a balanced way at school

are explored. Ideas on how the home can impact a child's functioning in school are examined. The paper ends with an understanding on why education, in the fullest sense of word, is essential to a child's success.

A social/emotional education is "through which children ... acquire and effectively apply the knowledge, attitudes, and skills necessary to understand and manage emotions, set and achieve positive goals, feel and show empathy for others, establish and maintain positive relationships, and make responsible decisions" (What is SEL). The Collaborative for Academic, Social and Emotional Learning (CASEL) identifies five core competencies that "educate hearts, inspire minds, and help people navigate the world more effectively" (What is SEL): Self-awareness, self-management, social awareness, relationship skills, and responsible decision-making. These components create the tangible outline for a social/emotional education.

The three R's, reading, writing, and arithmetic, are the basis of an academic education. They are the tools that a student can use to gain knowledge in any subject. As the Delphi Academy of Boston elaborates, "If a student can read and write, he or she can complete a research project and learn to type. If a student understands the basics of arithmetic, he or she can learn to program complex algorithms or study science" (Are the "Three R's"). If reading, writing, and arithmetic are the bull's eye of education, science, art, and technology would be what surrounds that. An academic education is the key, says George Washington Carver "to unlock the golden door of freedom." These three abilities give a student opportunity and access to further their knowledge and use it in a practical way.

A social/emotional and academic education are intrinsically linked. Without each other, it is very difficult to inspire success in a student. A strong academic background provides the knowledge, while social emotional offers the motivation and belief in oneself the student needs to move forward in life. To be a doctor, one may have the passion, empathy, and moral values, but one cannot practice legally and successfully without the knowledge and credentials. Someone may be hired based on their diploma and credentials but will progress forward to a higher rank based on their social/emotional skills (self-awareness, self-management, social awareness, relationship skills, and responsible decision-making). A social/emotional education provides meaning to information taught,

allows a student to experience knowledge and not learn it by rote.

An unhealthy social/emotional education is often related to behavioral issues in school and at home. Various studies show that it is also often associated with “a variety of poor school-related outcomes such as low overall academic achievement, high rates of absenteeism, and low graduation rates” (Saeki and Quirk). Young adults with a poor social/emotional development tend to have a higher rate of confrontations with the law compared to peers (Wagner et al., 2005). Research shows that implementing a social/emotional learning programs improves achievement in students by 11 percent, and increases kind actions such as sharing and empathy. Social/emotional learning programs in schools have been proven to reduce anxiety in students and improve the outlook students had on their school. A social/emotional education allows students to participate in learning experiences and increases a student’s capacity to learn (Durlak et al., 2011).

Academic achievement influences one’s career or vocational choice. A higher GPA offers a broader choice of university options, and those create a better variety of jobs. A strong academic education also provides the student with tools to explore and understand more about the world. An academic education has many social benefits as well. There is a strong correlation between the level of academic achievement in society and an upwards socioeconomic development (Steinmayr, 2014). Numerous studies also suggest a correlation between the number of years in school and an adult’s good health (See Auster, Leveson, and Sarachek 1969; Grossman 1972; Silver 1972; Grossman and Benham 1974). For example, women with no or some college education are influenced differently by a cereal advertiser regarding fiber content than college-educated women (Ippolito, 1990). An academic education does not only influence the personal life of a student but also of the world around him.

A balanced education is a lasting gift. A school should be able to give a child the tools to be a thinker and an innovator in this fast-paced world. With a balanced education, a student should graduate and understand that he has options for a career and options on how to live his life. Without the education he might make a small difference but with education he will have the tools and background necessary to implement real change if he chooses to do so. The following are some ways recommended by the CASEL organization by

which a social emotional education can be implemented and integrated with the academic aspect of schooling.

1. TEACHER LANGUAGE

A teacher can praise a student, which is good, but a teacher can also use her words to encourage a student, and that causes longer lasting effects. Instead of saying “Good job!” the teacher should explain to the student why he/she believes the student was successful in that assignment. For example, on a spelling test the teacher could say, “Wow, Billy, I see that you studied your words and that helped you get an A! Keep it up!” Or, when a behavior issue comes up, instead of telling the student how to behave, the teacher should discuss the issue and have the student come to their own understanding of why what they did was the wrong choice. When teaching, the best way to increase a student’s vocabulary is by the teacher using formal academic language. With modeling, the child gains a wider ability to express themselves through different words and synonyms leading to healthier interactions amongst peers, parents, teachers etc.

2. COOPERATIVE LEARNING

According to “Teaching the Whole Child,” five elements are vital to successful cooperative learning in students: “(1) positive interdependence, (2) individual accountability, (3) promoting one another’s successes, (4) applying interpersonal and social skills, and (5) group processing (the group discusses progress toward achieving a goal).” Students work together on a project in a worthwhile way. Students need to have individual accountability, as well as a collective accountability to guarantee the outcome of their learning project. Cooperative learning enables the student to successfully work with others, accept and process criticism, and accomplish tasks as a result of group effort.

3. CLASSROOM DISCUSSIONS

During classroom discussions, teachers have the potential to ask open-ended questions that lead to students elaborating on their thinking, and developing and exploring their own opinions. Effective classroom discussions are around subjects which students have some knowledge of, and they serve to develop student’s communication skills. Students should be building on one another’s

ideas and the teacher could create a dialogue from which the students learn new information from one another. Teachers could have groups of students argue a point of view that is different from their own or have the students provide textual evidence in order to encourage credible answers.

4. SELF-REFLECTION AND ASSESSMENT

In order for students to practice self-reflection and self-assessment, teachers should ask students questions that compel them to reflect and think about their own work. Instead of asking “Do you think you did a good job?” the teacher could ask, “Please explain how you got to the answer,” or “What could you have done differently to get a better grade?” This is about asking the students questions that develop their assessment of their own thinking. Teachers can create goals for students in order to facilitate their success with self-reflection and self-assessment. The teacher could ask the students to provide different ways in reaching one answer to a math problem, and this aids in seeing details in the bigger picture.

5. BALANCED INSTRUCTION

This refers to teachers creating a healthy balance of different types of work in the classroom. Teachers should provide students with opportunities to learn from books, engage in lessons through experience, discussion groups, and collaborative effort. A range of methods to learning serve to broaden a student’s mind and perspectives. For example, a science project can include an experiment, textbook study, a group project, and traditional worksheet to incorporate various aspects of learning.

6. ACADEMIC PRESSURE AND EXPECTATION

A teacher’s expectation of students work and level of challenges the teachers give the student. The student should feel pressure to achieve within a reasonable level, too much work can dispirit the student, while work that is too easy can do the same. It is important for each individual student to be challenged and for the teacher to know how the student will react to different levels of challenges. In the same classroom, one student may be able to accomplish more with a tighter deadline than another student who may need time to do classwork one step at a

time.

7. COMPETENCE BUILDING

This occurs when help students develop their social and emotional competencies through methodical instruction and modelling of positive relationship skills. The teacher coaches students during group work and encourages positive communication between peers. If an issue arises between students, the teacher guides the students on how to effectively communicate and deal with the problem. The teacher can also provide opportunities for students to model positive behaviors.

The theme running through all the above seven points is balance. The teacher focuses on relating the information to the students in a productive manner. The students absorb and utilize the information through various means of learning, which aid in developing their entire self. A core component of a successful education is providing both a strong academic and social/emotional education. Giving over information provides students with the tools and the social/emotional part educates them on how to use those tools.

Before and during a child's schooling, the home has an influence on his social/emotional functioning in the classroom. A study with African American families revealed that children who had frequent learning opportunities at home had more positive approaches to "learning, self-control, interpersonal skills, and fewer externalizing behaviors" (Baker et al., 2014). Parents are the main agents of socialization for young children and warm, personal interactions increase a child's interpersonal skills (Baker et al.). Two methods that increase social-emotional capabilities are maternal warmth and home learning stimulation. Maternal warmth is "hugging, kissing, expressing affection, and praising children" (Baker et al.). Home learning stimulation can be affected by "parent-child reading, visiting the library, telling stories, singing songs, and providing children's books" (Lonigan et al., 2009). These early interactions children have with their parents shape the way that children interact with their teachers, classmates, and learning environment.

Maternal warmth can be implemented in a number of ways. If the child is unhappy, validating the child's feelings and talking it out is very beneficial. Instead of saying "You're fine, don't cry," acknowledge the child's hurt and discuss the severity of it. Asking the child whether the problem is "big,"

“medium,” or “small” directs the child to reflect and be aware of the situation. Age appropriate follow-up questions such as “How long will the problem last?” “How many people does the problem affect?” or “How easy is the problem to solve?” help a child develop perspective and problem-solving skills (Describing and Solving Problems, 2017). Unconditional love in the home and belief in the child give him a belief in himself.

Home learning stimulation can be accomplished a number of ways. In 2012, Baker et al. released the following results:

Two specific aspects of home learning stimulation, namely shared book reading and number of books in the home were related to school readiness among African American boys in kindergarten. Specifically, African American boys with mothers who read to them more often and provided more children’s books in their homes had better reading and approaches to learning scores in kindergarten.

Other methods of accomplishing this are by bringing academics into children’s daily routines. For example, when cooking, asking children to calculate ingredients or read recipes. When a parent is doing laundry, toddlers can be taught by example how to sort by color. The examples in this paragraph and the one above showcase an education-oriented environment possible within the home.

Perhaps “Why learn?” isn’t the question, but “Why teach?” To educate children is to give them the greatest gift: opportunity. Teaching children the three R’s gives them a solid base and foundation to spring off of. Teaching in a way that incorporates the five core competencies of a social/emotional education provides children with motivation and inner strength to achieve their personal goals. A balanced education is key to the future success of a child.

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Refugee Limbo: How Low Can We Go?

Frank Orefice

Winter 2017
English 2400 | Freshman English II
Professor Kevin Kolkmeier

The refugee crisis has beset the media as of late. Almost daily we hear about the massive upheaval of thousands of people as they attempt to escape from their war-torn countries. However, despite this daily dose of information about the crisis, there are still many people who don't know much about it except for what they see on the news or hear by word of mouth. Those who have seen the effects of the crisis first-hand are usually those who live in the countries where the upheavals took place or where the displaced people ended up. Many of these refugees don't make it to their destinations, but are instead placed into camps before being granted access into the country they seek refuge in. Many of these camps, however, are not hospitable as they're so rundown, cramped, and under-supplied that it's shameful that these are government-run. The consequences of these camps are the detriment of the health and well-being of the refugees, and the only ones at fault are the governments of these developed countries that put them there.

It's unfortunate to find refugees living in such deplorable conditions today. Refugees are forced to leave their country due to war, persecution, or disaster. Due to prejudice and other people's lack of desire to get involved in racial, ethnic, or religious conflicts, there are numerous groups of people fleeing their home countries. Many of these refugees involved in the refugee crisis are from the Middle East and are attempting to travel to neighboring countries and Europe to start a new life. These refugees left their homes, not because they wanted to, but because it was the only way for them to guarantee their safety. However, safety comes at a high price as they must go on an arduous journey

that may lead to their deaths instead of preventing them. Most hope to achieve asylum in the countries that they believe will be their new homes. Asylum is when displaced people are granted protection by a nation after they have left their native country; these individuals who gain asylum are known as political refugees.

Sadly, despite the hope that is put into these sanctuary countries, with the influx of refugees, many conservative movements have begun to emerge hoping to close their countries' borders to their unwelcomed guests. With nowhere else to go, refugees are forced into camps as they wait to be given asylum from a country that is indecisive as to whether it should allow these people into their country or force them back into their own. While these refugees wait in the camps, they're subjected to: health problems, lack of resources, poor conditions, and being treated as prisoners; though these countries have their reasons and there are some that are exceptions to this, these problems are too prevalent to ignore. These conditions lead to the refugees feeling as though they're in a perpetual limbo, where they're unsure if they've truly made it to the end of their journey or if it was all for naught.

All the deficiencies in these camps culminate in physical and mental health problems for the refugees. "The Health Impacts of the Refugee Crisis: A Medical Charity Perspective" by Leigh Daynes details the variety of physical and mental health problems found in refugees before and after they enter the camps. Many of the health problems found in refugees stem from "traumatic experiences in the country of origin, compounded by displacement, panic attacks and debilitating forms of anxiety" (Daynes). The journey itself has already undone the minds of those who've undergone traumatic experiences along the way, and the unsavory conditions of the camps are only intensifying the effects. Many of the refugees have not taken their health into consideration when traveling as they prioritized their basic needs: food, water, and shelter. When they enter these camps, they're exposed to "poor sanitary conditions, which lead to the spread of viruses and bacteria" (Daynes). There are even instances of institutional and police violence among refugees. These acts of violence are due to police efforts to quell the influx of refugees, but these acts have "resulted in serious injuries, including head injuries and fractures" (Daynes). These camps were made as a temporary measure, so that the countries can decide what to do with these refugees, but the

conditions that they're forced to live in show that these countries are "seemingly forgetting, or indeed ignoring, their duty to protect and care for people" (Daynes).

The camps that these refugees are placed in usually lack resources. These camps are under-supplied, even though they're meant to house thousands of people. "My Time at a Refugee Camp in Greece: Waiting in Malakasa" by Arianne Zwartjes details her time volunteering in an under-supplied camp located in the Greek town of Malakasa. Her account of the camp is that "they desperately needed a pediatrician and an OB/GYN to make consistent visits and access to a dentist" (Zwartjes). She also notes the camp's lack of other necessities, such as air conditioners, showers, and toilets for the thousands of inhabitants in the camp. This shouldn't even have to be an issue, as these are expected to be available in even the most rudimentary places. The lack of essentials in these camps can be attributed to Greece's economic struggle, but the problems are not only economic but political, as they don't "want to encourage more people to come" (Zwartjes). Despite the camps' lack of essentials, there are those who go against regulations to supply the guests with much needed supplies. Those who watch over the throngs of people seem to be very sympathetic due to the poor conditions that they're left in as "young soldiers ... hand them bags of food they'd brought home to share with people in the camp" (Zwartjes). Though this is a kind gesture, it's still not enough to help sustain the camp and its inhabitants.

In the Pikpa camp located on the Greek island of Lesbos, the poor conditions have become even more detrimental to the inhabitants' well-being as the temperature is going below freezing. "These Refugees Escaped War. Now They're Freezing in Greece's Migrant Camps" by Annabell Van den Berghe describes what the conditions are like for those in the Pikpa camp and how the camp's inadequacies have led to its inhabitants taking matters into their own hands. Due to scarce resources in the camps, such as blankets and coats, the refugees have opted to burn "anything they can find to heat their tents" (Van den Berghe). This puts even more unneeded pressure on the refugees, as they must begin deciding on what to give up to survive in the harsh winter months. What's worse, Van den Berghe says, is that "With all of the camps heavily overcrowded, often reaching three times their capacity, aid workers find themselves trying to help with steeply curtailed resources." Despite Greece's desire to lessen the traffic of refugees in their country, refugees continue to seep into the camps,

leaving even more people waiting in the cold. Since Greece's camps are lacking resources and are in poor condition, other European countries should help by picking up the slack and send much needed supplies to Greece, even if it goes against their wishes.

Australia is another country that's been afflicted by the refugee crisis, but it has decided not to bother with the formalities that the rest of the countries involved in the crisis have followed. They've instead chosen to use a more authoritarian approach by treating the refugees as prisoners instead of guests. "Broken Men in Paradise" by Roger Cohen describes Australia's treatment of refugees who've attempted to smuggle themselves into the country by placing them in camps on the neighboring islands, Manus Island and Nauru. Unlike the previous camps mentioned, the camps located on these islands lack resources and are in poor condition for a reason. They're meant to punish those who are considered by Australia as " 'queue jumpers,' a phrase that resonates in a nation devoted to a 'fair go' for all, it has safeguarded Australia's right to select who gets to people a vast and empty country" (Cohen). However, most of Australia's actions towards these refugees are due to the increase in conservative movements in the country and abroad, which are fueled by the fear of the unknown: The possibility of an increase in terrorism and the loss of jobs. So, for Australia to fight these possibilities, its "government argues that toughness is the only way to prevent the country from being overwhelmed" (Cohen). Despite Australia being in the right as to punish those who don't follow the country's policies, they're wrong in treating these refugees as criminals for wanting a better life.

Though there is some hope that a "one-time agreement with the United States ... will, over an unspecified period, take in an unspecified number of the refugees" (Cohen). However, due to the presidency of Donald Trump, who hopes to suppress the flow of immigration in the United States, the future of the deal is left unknown. This uncertainty leaves the refugees on the islands waiting and hoping that they'll soon be freed from these prisons. Australia could've saved these refugees the trouble of being subjected to the prison-like experience of these camps by sending them back to their own countries, or even owning up to their responsibilities by processing the refugees instead of having them wait for nothing. Australia was founded on a similar philosophy of "out of sight, out of mind" when "Britain's dispatch in the late 18th century of convicts to a faraway

land in Oceania, where they, too, would be invisible” (Cohen). Yet, Australia still felt the need to give these people the full prison experience with a detention center that is “primitive,” with “hundreds of men crammed into makeshift compounds or tents, scant food,” overseen by a “bullying expat staff contracted by Australia” (Cohen). Australia’s blatant disregard for the well-being of these refugees by hiding them off the mainland and pretending that they don’t exist is not only sending a message to the smugglers, but to other nations that Australia is a lost cause in terms of asylum and humanitarianism.

Do not consider my criticism of these countries as one-sided. Even though I disagree with their methods of decreasing the migration of refugees into their countries, I can’t deny that I don’t understand their reasoning. Greece is suffering economically and is unable to take in and provide for refugees when it has its own people to provide for. Australia is faultless in terms of enforcing its laws, as the country is in its right to protect its borders from anyone who wants to enter the country by illegal means. The refugee crisis is much more complicated than it appears. “The Hard Truth About Refugees” by James Traub explains how the refugee crisis isn’t as simple as just leaving our borders open for anybody who wants to enter. He mentions that in Sweden there is a word, “‘asikstkorridor,’ which translates as ‘opinion corridor’ and describes all those things considered incorrect not only to say but to think” (Traub), which includes the view that the refugees will not be able to integrate into their new country. Though this assumption is unfair, we can’t “insist that the arrival of vast numbers of people on our doorstep is an unmixed blessing” (Traub). What many of these countries’ share is their fear of the unknown: “Will these refugees affect jobs?”, “Who are we letting into the country?”, and “Will they be able to integrate into the country’s culture?” in addition to a myriad of other questions, as by letting these refugees into their country, they are opening themselves up for many possibilities that will not only affect the future of the refugees, but their people as well.

This fear has also led to a growth in conservative movements in the countries involved in the refugee crisis. These conservatives fear that by letting the refugees into their country, their culture and financial and personal safety will be in jeopardy. This fear has also affected the United States, despite there being “no real refugee problem ... no immigrant crime wave” (Traub). This can be attributed to the 2016 election and the presidency of Donald Trump, who is

one of the many representatives of conservative movements found in countries affected by the refugee crisis. Though I didn't vote for Trump, I can understand what people see in him. Despite that "Trump's habit of blaming refugees for terrorism ... flies in the face of the evidence" (Traub), he brings up the concerns of American citizens when it comes to the refugee crisis. We can't be sure that every refugee that we take in will be able to integrate into our culture, or that they won't commit a crime, or even in the extreme case, an act of terror. Despite these fears being unfounded, they are still apparent in the minds of many of the country's citizens. But fear is a double-edged sword that can run rampant if left unchecked.

These feelings towards refugees are not new as they have appeared in many others who've encountered those who are different from themselves. J. M. Coetzee's novel *Waiting for the Barbarians* is an allegory that shows how the fear of the unknown can cause us to distort our reality and view those who are different from us as though they were barbarians. The protagonist (also known as the Magistrate) sees the injustice that is done against those who are deemed barbarians and attempts to help as well as to better understand them, much to the ire of those around him. Despite his willingness to help, his conviction begins to waver as he starts to question if he should have never gotten involved. But even when he tries to ignore them, he can't help himself as he watches his own countrymen commit barbarous actions against those who they believe to be the true barbarians. The Magistrate profoundly states: "Nothing is worse than what we can imagine" (Coetzee 31), which holds true as what we imagine can be worse than how something really is, and these countries' citizens are letting their fear take the place of reality. However, we can't let these refugees suffer due to our uncertainty; we must persevere with both the country's citizens and the refugees' interests in mind.

Though many of these countries shy away from helping these refugees, Germany is an exception. Unlike its neighbors, Germany has decided to take the reins of the refugee crisis by taking in and housing people displaced by the crisis before granting them asylum. "The New Europeans" by James Angelos explores Germany's housing of refugees in their country and the reaction of the country's people. The article states that Germany is housing refugees in temporary residencies in the country, such as "school gymnasiums, shuttered

big-box stores and crowded tent encampments” (Angelos). Unlike the camps found in other sanctuary countries, these refugees aren’t left in unhealthy and poor conditions. Though many of these refugees are “showing up in train stations or emerging from the back of smugglers’ trucks” (Angelos), local officials work to find somewhere that they can be housed, instead of turning them away or imprisoning them. Much of Germany’s eagerness to help in the refugee crisis is due to the country’s past, “which unleashed the violence that prompted the earlier mass flight – [but] has now become a beacon of safety and opportunity for imperiled and dispossessed people around the world” (Angelos).

Though Germany is holding its head high due to its moral achievement, the country still struggles from its decision to let these refugees into their country. Like other countries that let in refugees, there is a growing fear of terrorism as “Germany’s domestic intelligence service assessed the risk of a terrorist attack in Germany as ‘high’” (Angelos). This has in turn increased activities of conservative groups that want to keep the refugees out of the country, as they’re wary of Germany becoming a multicultural nation as it “has not traditionally viewed itself as a destination for migrants” (Angelos). Many German citizens even feel that they’re unable to express their own opinion in fear of being labeled as a Nazi. Contrary to Sweden’s *asikstkorridor*, in Germany those who have pent up their anger towards the refugees have found comfort in the *stammtisch*, “a regularly scheduled beer-drinking session that is often established among groups of friends in Germany” (Angelos). These events give catharsis to those afraid of being viewed as racists since “*stammtisch* talk is often considered beer-fueled blather not to be taken seriously” (Angelos). Despite these problems that Germany shares with other countries involved in the refugee crisis, Germany is distinguishable from the rest; it has shown the capability to struggle through with all the hardships that come with their humanitarian effort. Though it may be challenging to accept new people into their countries, by persevering through these challenges they’re showing their country’s integrity and living up to the ideals that these refugees were seeking.

The crisis is still going on, with refugees losing their lives while trying to look for protection and safety. Most of us are unable to fathom what types of hardships these people have been through and can only see it through the news. However, the government in these countries that set up these camps see

the crisis on a daily-basis. These countries that house these refugees also hold their lives in their hands. It is up to them to provide for these refugees, not treat them as though they were pests. They must remember that they didn't choose to come to their country; they had no choice. It's our duty to treat these guests with open arms; even with our prejudices and our fears, they're still human beings just like us and deserve a chance for a better life. It is a commitment that has its upsides as well as its downsides, but if we can manage to preserve the lives of the displaced as well as our countries' citizens, we will be creating a precedent for future generations to learn from, as to prevent or diminish the effects of any future crisis that may occur.

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Up-cycling Expired Ibuprofen

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Chemistry 8182 | Independent Study
Professor Homar Barcena

Abstract

The purpose of this research project is to raise awareness of pharmaceutical pollution and ultimately reduce the anthropogenic introduction of drugs such as Ibuprofen in the environment. Our experimental approach is to determine a new pathway to teach students how to synthesize amides using expired drugs. The up-cycling of expired Ibuprofen utilizes the active ingredient of over-the-counter tablets to teach students the principles of extraction and organic synthesis, in this case the transformation of carboxylic acids into amides.

Nuclear Magnetic Resonance (NMR) spectra was used to characterize the starting material and the product of the reaction by looking at the number and position of the carbons and hydrogens. This information aids in confirming the structure of the product. The NMR also shows if any impurities are present in the sample. Fourier-transform Infrared Spectroscopy (FT-IR) was used to confirm the presence of the amide in the product. The melting point of the product was investigated using a Fisher-Johns apparatus, and a recrystallization procedure was developed to purify the product.

Background

Pharmaceutical pollution is steadily gaining attention as a growing source of water pollution. Scientists are investigating the incidences, life-spans and effects on aquatic life of pharmaceutical drugs. Ibuprofen is one example of an over-the-counter drug that has been found in lakes and in rivers near water treatment plants, and is classified as an “emerging contaminant” according to

scientists.^[1] As an emerging contaminant, ibuprofen has the potential to disrupt aquatic ecosystems. In one study published in 2012, the introduction of ibuprofen into water systems led to the drug being found in the bile of fish.^[2] Another study involving exposure of tilapia to ibuprofen reported genotoxic effects even after 48 hours of exposure, which can result in genetic mutation and cancer.^[3]

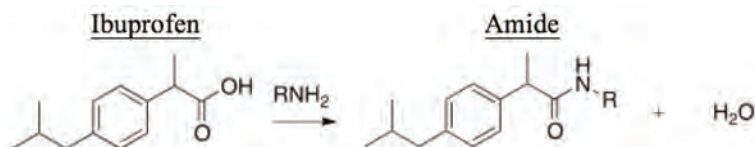
The presence of pharmaceuticals have been found to bear other “ecotoxicological effects” on aquatic life.^[4] For example, laboratory studies have found that ibuprofen affects the reproduction in fish, which includes delayed hatching of eggs.^[5] Additionally, anti-depressants are suspected of altering the spawning behavior of clams, disrupt movement in snails, alter behavior in crayfish, and affect cuttlefish. The disturbing part of this is that these studies have only just begun, and already the potential ecological effects are devastating. If those concerns are not enough to convince the public that this is an emergent problem, scientists are also considering the interactions these drugs have with each other and how they can affect wildlife. They refer to this as the “cocktail effect” and research on this could be very complex.^[4]

Pharmaceuticals have been found in drinking water.^[6] According to a study in 2011, 80% of the water samples drawn from a network of 139 streams in 30 states contained one or more medications.^[6] There are many ways that pharmaceuticals are introduced into the environment. The human body is not capable of fully metabolizing pharmaceuticals, which means that human waste may contain pharmaceuticals. Another port of entry into the environment is through livestock. When animals are treated with antibiotics, the drugs could end up in animal waste. Improper disposal of pharmaceuticals such as expired drugs also leads to drug pollution of the environment.

Some pharmaceutical companies offer expired drug take-back programs; however, these programs are not well-known and most people resort to flushing expired drugs or trashing them. This leads to an increase in the number of contaminated waterways. Water treatment plants do not achieve high removal efficiencies. One technique that is being heavily investigated involves the use of titanium dioxide; however, it would be extremely expensive to treat millions of gallons of water with this process. The best way to prevent entry of drugs in the environment is prevention.

The purpose of this research project is to raise awareness of the potential

environmental effects associated with improper disposal of pharmaceuticals. By educating the public about these effects, the project hopes to ultimately slow down the rate at which this drug enters the aquatic environment. The project will use expired ibuprofen to teach synthesis and other laboratory techniques to students. By using the active ingredient in the single component drug ibuprofen, an amide can be synthesized (Scheme 1).



Scheme 1. Reaction of Ibuprofen to form an amide.

Results and Discussion

Conducting this research initially presented many questions that took many trials to answer. The first of these trials included strong acids and bases as solvents for extracting ibuprofen. Sodium Carbonate was initially used to extract ibuprofen, but only half of the ibuprofen was recovered from the tablet. Concentrated hydrochloric and sulfuric acids were also used but these are not environmentally friendly and have the potential to seriously harm students. Therefore, several solvents were tested to extract a greater portion of the starting material. Toluene was found to be most efficient because a relatively small volume of toluene extracted more than ninety per cent of the ibuprofen in the tablets consistently. The samples that were extracted using toluene were isolated and tested using NMR to confirm the identity and purity of the material. A number of other solvents were used before concluding that toluene was the most efficient solvent for the reaction.

Thus, extraction of ibuprofen from the 200mg tablet was achieved by grinding the tablet and extracting with toluene in duplicate. The mixture of toluene and ibuprofen can be separated from the solids by centrifugation. About ninety to ninety-five per cent of the ibuprofen can be recovered and used in the subsequent reaction. Three amines were reacted with ibuprofen to determine the best reagent for the experiment. For the planned experiment, benzylamine produced the cleanest and the easiest isolable product. The two other amines that

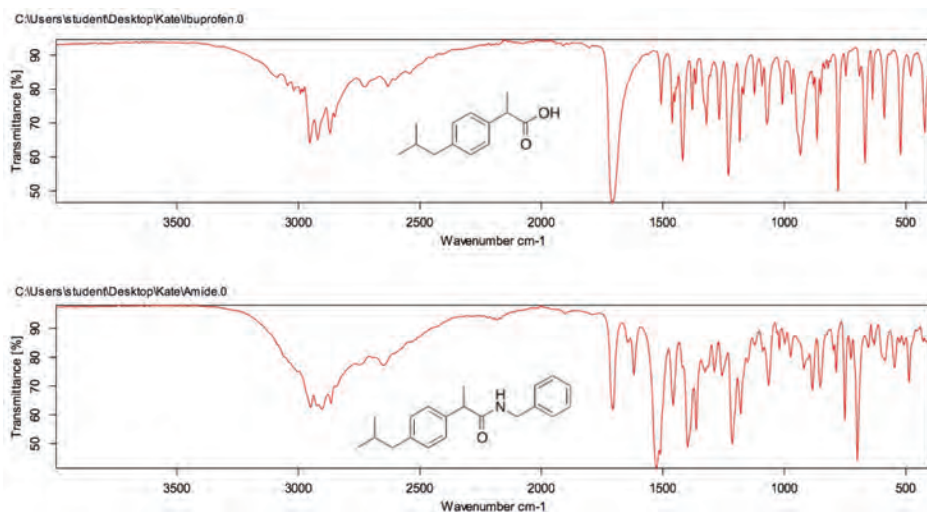
were tested were aniline and butylamine. The crystals produced by these amines were either too small of an amount when weighed, or of poor purity when tested by NMR.

The reaction required the removal of water molecules to form the product, and calcium chloride was added to the Hickman still to drive the reaction forward, in accordance with Le Chatelier's principle. Boric acid, which is naturally occurring in seawater and is used as an ingredient in laundry detergent, was used to catalyze the reaction. A faint yellow-green color signals the end of the reaction. A white precipitate formed upon addition of hexanes or petroleum ether. The latter of the two required scratching in order to crash solid crystals. Of the two solvents used, the reaction works best with hexanes. The solids recovered upon addition of hexanes appeared to have little impurities. Precipitation using petroleum ether as the solvent sometimes required recrystallization in order to purify the sample product. This meant that an appropriate recrystallization solvent had to be found. After trial and error, a solvent of 10% ethanol in water was discovered to recrystallize the product that was crashed out using petroleum ether. Spectroscopy samples produced using both solvents seem very close in terms of purity. This gives alternate ways to reach the goal.



The ^1H NMR spectra were obtained using a Bruker 400 MHz NMR. It characterizes the two samples in two ways that are significant to the identification of the samples. First, the ibuprofen sample has fewer peaks than the amide. Protons in the aromatic region show up at 7 ppm. The product has one more benzene ring than the starting material, therefore the NMR gives useful information that distinguishes the starting material from the product.

Another way the NMR aids in identifying the product is by the CH_2 protons bonded to the nitrogen atom (N), or the benzylic proton. This bond is not found in the starting material and observed at 3.8 ppm. According to the spectra in figure 1, this is present in the amide sample (bottom) but not in the starting material (top).



The FT-IR spectra of the starting material and the product are shown in figure 2. By analyzing and comparing both spectra, it is clear that there are some major differences. The fingerprint region (below 1500 cm^{-1}) is different for the amide and Ibuprofen. This indicates that the two sample are different and confirms that a reaction took place. The second noticeable difference is the variance of the broad peak between 2500 -3300 cm^{-1} . The broad OH stretch is present in the starting material and the broad NH of the amide group present in the product. A faint peak $\sim 3200 \text{ cm}^{-1}$ may be characteristic of the NH group that is only present in the product.

Two 200mg ibuprofen tablets were used for each synthesis. After the reaction was completed and the product was dried and weighed, the percentage mass yield was calculated. It was assumed that the mass of starting material used was 400 mg. The mass of the product obtained was 408 mg. This indicates a percentage mass yield of 102 %. Based on the analysis of the all the data, this indicates that while the purity of the sample is high, it is still slightly impure. However, this method of synthesizing the amide using expired ibuprofen demonstrates the feasibility of the reaction.

Another way of confirming the synthesis of the amide was by taking the melting point of the product and comparing it to literature value. The Fisher-Johns apparatus was used to determine the melting point of the product. It was found that the melting point range of the product was 123-126 oC. This is a narrow range and it suggests high purity of the sample being tested.

Conclusion

Expired ibuprofen can be used as the starting material in the synthesis of amides. The reaction was complete within 40 minutes at 120 °C. This means that the experiment may be implemented in a classroom setting. Future work includes full characterization of the product which includes ¹³C NMR, finding a better solvent for thin layer chromatography (TLC), and mass spectrometry. Once these are complete, the experiment will be used in a classroom setting.

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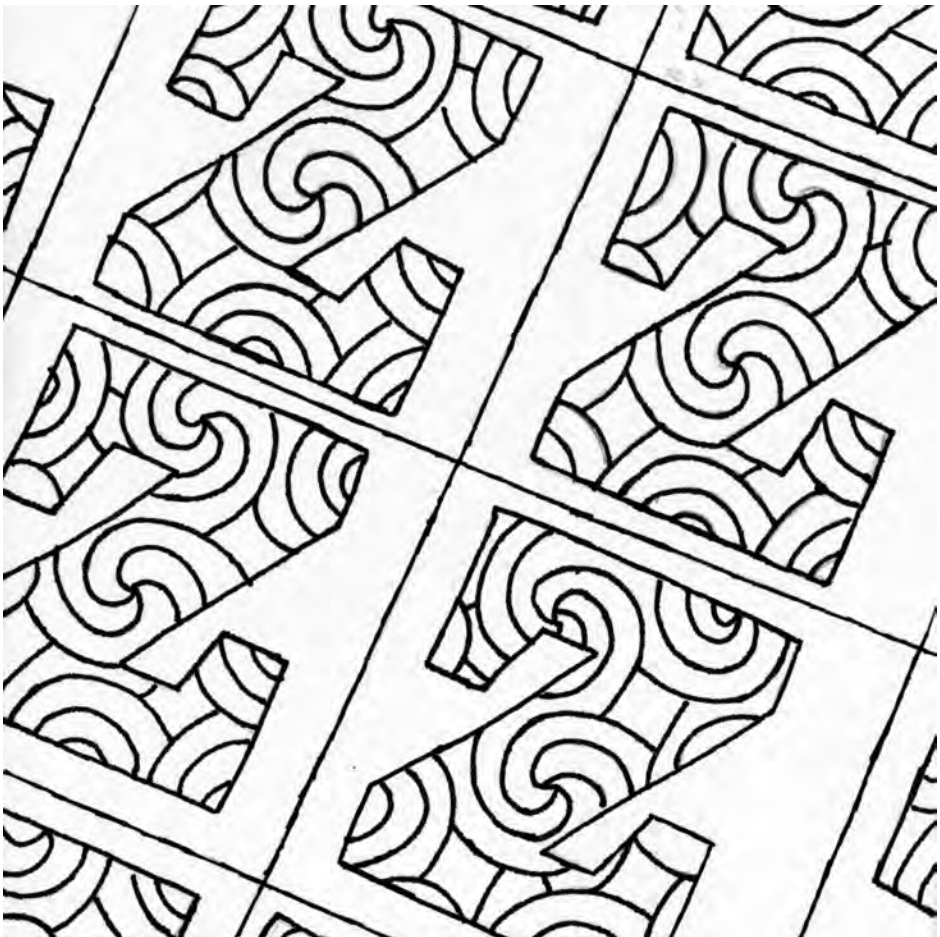
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Typographic Experiment

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Spring 2017
Art 7400 | Experimental Typography
Professor Valerie Sokolova



***Se Puede* – Cesar Chavez and the United Farm Workers**

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English 2400 | Freshman English II
Professor Maureen Fadem

Often we hear of great people who stand up and fight for the common man. Some are remembered more than others. There are freedom fighters, social and civil rights activists, abolitionists, protesters and martyrs. The struggle for social justice is often filled with names like Washington, Gandhi, King, Mandela, and Assange. Chavez is not a name that is often mentioned and is seldom known by school children, even those who are Hispanic and, in particular, of Chicano descent.

Cesar Estrada Chavez was a patriot, an advocate for civil rights and a fighter for social justice. He led a life of non-violent protest and fought for the rights of farm workers everywhere. He lived as a vegan because he cared about animal rights. He is considered one of the greatest Hispanic achievers in U.S. history and one of the greatest champions of worker rights that ever lived. Chavez was a proud Mexican-American who co-founded the United Farm Workers union and he dedicated his life to peaceful demonstrations in order to bring change to the agriculture industry. Although he is long deceased, he continues to act as a role model and an inspiration for those who stand up for social justice. His steadfast determination still resonates to this day.

Background, Influence and Activism

Chavez was born March 31, 1927, in Yuma, Arizona, to a family of Mexican immigrants. He was one of six children (Taylor 59). His family owned a ranch and a store but during the Great Depression, when times got tough, they lost it and began working for other produce growers (Burns 9). Life for the average

field worker was very bad. Often they had to endure mistreatment and work under treacherous conditions. Those conditions include very hot weather, lack of shade, no water, long hours, no breaks, low wages, lack of health care of any kind, bad housing situations and children forced to work alongside adults (Taylor 47).

Chavez was taught at an early age to speak up against injustice. This aspect of Chavez's upbringing is clearly evident. His mother, Juana, was his biggest influence. She taught her children to respect elders and to treat each other equally:

Juana instilled in her children the importance of helping others and the need for personal sacrifice. She raised her children with firm rules and *consejos* (advice) that underscored those beliefs ... She quoted *dichos*, or sayings, about not fighting and told them to just walk away from conflict. She insisted they share everything. (Pawel 11)

The lessons that Juana taught her children were most likely taught to her when she was a child. Chavez took those lessons with him throughout his life and he made many sacrifices along the way. He sacrificed time by not always spending precious moments with his children, his personal safety by standing up to the Teamsters Union, which used violence to intimidate protesting field workers, and he sacrificed his health when he went on numerous hunger strikes. He did this to show his fellow union members that peaceful protests were his preferred way to demonstrate against the owners of the fields. His desire to start a union for the workers was likely a way to make sure workers were represented and treated fairly, again going back to earlier lessons taught to him by his mother. Chavez and his siblings had been treated fairly whether it was a reward or punishment. Those lessons would be evident in the way Chavez would conduct himself when dealing with union members, clergy, field owners and politicians (Pawel 11).

When the family would witness mistreatment of field workers at the hands of the farm owners, they would sometimes move to another location. The Chavez family would eventually move to Delano, California, the site of one of the biggest protests to ever take place in agricultural history. Chavez quit school after the seventh grade so he could work instead of his mother. Later,

he joined the Navy for two years. Once he finished his service, he returned to picking in the fields. When Chavez became older, he would start to speak out against injustices he witnessed and experienced (Pawel 20). Chavez became a member of “a Mexican-American advocacy group called the Community Service Organization. They were devoted to small-scale activism: fighting racist establishments, helping with immigration forms, challenging deportations” (Heller 3). While at the CSO, with the help of Fred Ross and Saul Alinsky, Chavez learned how to organize, manage and motivate people. After leaving the CSO, he used those talents to start a union that would represent farm workers who needed a voice that could bargain and negotiate with the field owners for better pay and working conditions.

The United Farm Workers in the 1960s

Delano Grapes was one of the country’s biggest grape producers. The company was named after the town where the business was located. In 1962 Chavez, who knew that a union would be the best course to address the concerns of the workers, started to walk the fields to speak directly to the workers about the prospect of becoming a union. The growing sentiments he encountered were of frustration, and the workers looked towards Chavez and others to give them a voice. He and Dolores Huerta would become the co-founders of the United Farm Workers Union (UFW). In 1965, the workers would strike, protest and start a boycott not just of Delano grapes, but grapes in general if they came from farms that would not allow unionization of their workers or refused to negotiate with the workers in good faith. Soon Schenley and DiGiorgio, two of the biggest growers in the area would be targeted as well.

Grape pickers in 1965 were making an average of \$.90/hour, often drank from the same cup, had no portable field toilets and lived in temporary housing that was mosquito infested and segregated by race. There were no cooking facilities (UFW.org).

Chavez, having come from a family of migrant field workers, understood the conditions and what the workers needed as far as representation in negotiations. Having a very good grasp of English, he would be entrusted by the workers to act on their behalf. While he worked to get the union started, he would also study the teachings of Mahatma Gandhi and non-violent protesting. Speaking

out, Chavez tried to strike a balance between the need for action and the need to take action through peaceful methods:

“We maintain that you cannot really be effective in anything you are doing if you are so loaded with violence that you cannot think rationally about what you have to do. ... Total violence still works and is working many places. I disagree that it has long-lasting good results. ... But violence works only when it’s total violence, and non-violence works only when it’s total non-violence. And you can’t have anything in between.” (Tejada-Flores)

Chavez clearly knew that often violence can be the ends to a means but he would rather let cooler heads prevail. He appealed to the better judgment of those who wanted results and were likely tiring of a drawn-out strike.

Those were turbulent times where many organizations were formed and everyone seemed to have a reason to protest something. The nation saw lots of violence on college campuses and on the streets of major cities. Not everyone felt it necessary to be combative when it came to protest. In *From the Jaws of Victory; The Triumph and Tragedy of Cesar Chavez*, Matthew Garcia writes:

The United Farm Workers [union] symbolized the potential of peaceful protest by a multiracial, intergenerational coalition of men and women. ...[It] projected an image of inclusivity and cooperation that attracted new recruits and won the support of the media and urban consumers. (Garcia 9)

The 1960s saw the rise of the Weather Underground and their bombing campaigns on government buildings. There were the Black Panthers, the Brown Berets and the Young Lords who took on the character of being paramilitary groups. Such a stance would bring them increasing surveillance by the federal government. Chavez wanted none of that and looked towards the work of others who were using non-violence. He was offering the workers the opportunity for strength in numbers through the union’s use of peaceful protest. Chavez would gather a group of organizers and spearhead the movement to protest unfair labor conditions for thousands of field workers (Garcia 10).

Chavez walked a fine line between protesting and becoming politically powerful. He would remain relatively humble and continue to work tirelessly

and in an unselfish manner to see that his goals for the union would be met. He would use his own person in order to give examples of sacrifice and his non-violence stance by forgoing food. This was meant to publicize the strikes and boycotts and served as a reminder to the UFW's members that he was willing to suffer with them in order to keep their commitment of strength and unity without violence. He took cues from other great leaders in his quest to achieve his goals for union recognition and fair labor contracts for its members.

Non-Violent Methods and the Teamsters Union

In his studies of Gandhi, Chavez learned that the hunger strike is an effective tool that can be used to teach non-violence to fellow protesters who, more often than not, were restless at the pace at which negotiations were taking place. He went on hunger strikes three times while protesting unfair labor practices by the field owners. Dolores Huerta, co-founder of the UFW, recalls: "Well you can imagine what these tough, burly labor leaders from New York thought when we told them our leader, our president, was fasting. 'What's wrong with him? Is he crazy?'" (Burns 11). However, the hunger strike was just one of a few strategies in his fight to better the lives of the workers. He also set up picket lines at the entrances of the fields and boycotts of other produce were called for as well. Chavez would find allies in college students, the Catholic church and from Robert Kennedy. He "made ample use of their talents; he emphasized the incorporation of whole families into the farm worker union, he relied on unpaid volunteers, and he turned the exclusion of farm workers from coverage by the national labor law, as well as the failed strikes, into a brilliant strategic counter-offensive ..." (Lichtenstein 52). By getting politicians to support the strikers, Chavez would gain national attention and boycotts of non-union picked agriculture would go across the country. The hope was that the owners would give in, but it wound up being a long battle that took its toll on many of the families of the strikers. The owners would then turn to another union known for heavy tactics to fight the UFW.

Some of the owners, while signaling that they would find some common ground, would cut a deal with the Teamsters union. The Teamsters made sure to bring in the "heavies" who were known to use violence as a way to intimidate the protesters. They would use derogatory language and made threats daily.

Violence came in the form of beatings with various weapons. The Teamsters would use clubs made of hard wood, chains, stones and baseball bats to assault the picketers. They also waved and shot guns (Rodriguez, C. 86). Chavez and the striking workers would have more than the field owners and Teamsters union to deal with. Ronald Reagan became the governor of California in 1966 after defeating Pat Brown. He would use his position to try to break the Delano grape strike.

Whereas Brown had tried to sit on the fence during the farm labor struggles, Reagan made it clear that his sympathies were all with the growers. It was no better on the national level. Another conservative Republican, Richard Nixon, was in the White House, and Nixon had very close ties to the Teamsters and their new president, Frank Fitzsimmons. (Rodriguez, C. 84)

Reagan unilaterally decertified 18 of the 24 pending strikes. This made it legal for him to use the services of the Department of Employment. The strategy was to recruit strikebreakers, and to send them into the fields to replace those workers who were on strike. The Immigration Service also played a part in Reagan's plan by not enforcing federal laws and regulations. They permitted foreign workers and green card workers to commute and work as strike breakers (Telles).

Religion, Strategy and Tough Tactics

Chavez, having been raised by a mother who was deeply religious, knew that just as most of the protesters had Catholic upbringings, so too did some of the Teamsters. This gave him an idea. Mexicans believe that in 1531 the Virgin Mary appeared to a converted Indian peasant named Juan Diego in the town of Guadalupe. The Virgin asked that a church be erected on the site of her apparitions so that Mexican Indians could come to her and tell her of their suffering. Our Lady of Guadalupe has been one of Mexico's biggest saints since. Chavez came up with the idea to have a truck parked near the picket lines that carried a statue of the patron saint of Guadalupe. The strategy was meant to solidify most of the protesters and to keep some of the Teamsters from using violence. It worked more often than not, and the number of assaults went down

(Rodriguez, R. 3).

Chavez had gained support by the local bishops of the Catholic Church, but he questioned their willingness to help. The Catholic bishops tried very hard to help in the negotiations and wanted to stay as neutral as possible. They knew that most of the owners were Catholic and so they didn't want them feeling alienated. Mark Day gives us insight into Chavez's feelings about the church's motives:

“Most farm workers are Chicanos,” Cesar said. “And most Chicanos are Catholics. The church is the only institution which our people are closely associated with. When the church does not respond to us, we get very offended, and we are tempted to lash out against it.” (Day 58)

However, the bishops would take a stance against violence and would take part in the 1966 300-mile march from Delano to Sacramento (UFW.org). However, the times would bring about tragedy for the nation.

In 1968 the various demonstrations that had taken place by this time lasted more than three years. The nation would lose both Martin Luther King Jr. and Robert Kennedy to assassins. King had championed civil rights causes and his marches had inspired Chavez to do the same. Robert Kennedy supported Chavez and the UFW and held Senate hearings regarding false arrests made by the sheriff of Delano. He was also on hand when Chavez broke a 25-day hunger strike and is seen in a famous photograph breaking bread with Chavez. Kennedy would show his support by joining the picket lines (Heller 4). Chavez knew how to gain support and lead people, but he was also known to be tough.

Chavez had great negotiating skills and often stuck to his guns, but many times he found himself getting tough with members regarding their need to be firmly with the union or not. An example of this is when it came to the issue of “Braceros,” workers who were allowed to cross into the United States from Mexico for the sole purpose of working in the fields as cheap labor. They often were used for replacing striking farm workers. In the article “Political opportunity, resource mobilization, and social movements: The case of the South Texas Farm Workers,” Richard W. Griffin discusses what happened when workers from a rival union, the IWA, went on strike:

“... even if they [the Star County campesinos] (farm workers) joined the Union, nothing would change, because they would be replaced by a Mexican national carrying a green card or by an illegal alien.” Indeed, Mexican nationals were used so extensively as strike breakers that it became “very difficult” for Mexican ranchers and farmers to find available labor, as the growers paid strike breakers as much as \$1.00 per hour for crossing the picket lines of the IWA. (Griffin 5)

The IWA would later merge with the UFW as a show of solidarity. The Bracero program had been in effect since 1942 and Chavez wanted to see it end. He felt it undermined the union’s work and the Braceros would often settle for the very things the strikers were protesting for. Chavez was known to report to the U.S. Immigration and Naturalization Service the names of Braceros who were undocumented and crossing the border illegally. He was also known to employ spies within the union membership that could report back the names of workers who were not in the union. He would call them out at rallies and threatened to do whatever it took to see them get deported. Many took this as a slap against the average worker since most were of Mexican descent, but the plan had been a move to bolster unionism and to crush anti-union sentiment.

Victory

By 1970, the owners finally caved in to the demands of the UFW and 182 contracts were signed. It became official that the UFW was the legitimate union. The strike against the grape growers of Delano had lasted almost five years. For nearly 80 years farm workers had been trying to unionize but have always been defeated in one way or another. It’s not as though they were never a union, but they now had formal recognition that gave them collective bargaining rights. Chavez knew for certain that the boycott worked, but he knew a big part of their success was getting the public involved. As long as the protests were not violent, he could count on support by politicians and the clergy (Telles). Chavez said:

“... for three years we worked with the workers, established the offices, and began to deal with administering the contract, servicing the workers, and having an office. And for the first time, we’re bringing major decency, justice, some sort of order and

regulations to the hiring and firing of farm workers. And we're very proud of that." (Telles)

Death and Legacy

Chavez died April 23, 1993, of natural causes. After his death, his widow Helen donated his union jacket to the Smithsonian. Chavez was deeply religious and always used his beliefs as a guide for his actions. An admirer paid tribute to his courage in leading a life of activism: "Chavez was a man of faith as well as of action, and his life and achievements cannot be understood apart from his Catholicism. He merits a special chapter in not only Mexican-American history but in American Catholic history; in a very real sense, he bridged the two" (Higgins 4). Chavez was first and foremost a man whose values were deeply rooted in his Catholic beliefs. In his own words, Chavez demonstrated his views on life and sacrifice in the name of charity:

"When we are really honest with ourselves we must admit that our lives are all that really belong to us. So, it is how we use our lives that determines what kind of men we are. It is my deepest belief that only by giving our lives do we find life. I am convinced that the truest act of courage, the strongest act of manliness is to sacrifice ourselves for others in totally nonviolent struggle for justice. To be a man is to suffer for others. God help us to be men!" (Jensen 343)

Those are words that can only come from the heart of a passionate man with the desire to reach the hearts of other men. I don't believe Chavez wanted to give up his life but he understood the value of preaching and giving the appearance of being a "Christ-like" figure. It gave him the quality of a saint and moved many who heard him speak. Those were lessons that he had learned from studying the civil rights leaders of the day. Like Gandhi and King, Chavez's life would be celebrated and remembered for many years after his passing.

His legacy lives on and is evident by the numerous accolades and formal recognition he has received. Though not a federal holiday, President Barack Obama proclaimed March 31, the day of the workers' rights advocate's birth, Cesar Chavez Day.

President Obama worked as a community organizer after finishing law

school. Like Chavez, he wanted to work towards social and civil justice. I believe it is fair to say that Chavez was a role model and an inspiration for Obama. He provided him with techniques that are consistent with organizing social movements. Chavez used a slogan that went *Sí, Se Puede*. It means “Yes, One Can” or “Yes, It Can Be Done.” It is not surprising that Obama adopted that slogan during his first presidential campaign (Flanagan 2). It is a slogan that motivates and gives hope to those yearning for a better life. I chose to shorten it and use it as my title for this essay, *Se Puede. It Can Be Done*.

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D. P. and Me

Crystal Rose

Spring 2017
English 3000 | Introduction to Literature
Professor Robert Blaisdell

If I had an opportunity to have lunch with anyone, living or dead, at the tippy top of that prospect list would be Dorothy Parker. Although our lunch would probably be liquid and we'd more than likely wind up on the evening news. So maybe not. But she was brilliant, and she was tragic. More than for the conversation, I would want to watch how she behaves, because from my current vantage point – nearly a century away – she seems fascinating. She was constantly working during a time when women were regarded as little more than household appliances who talked (*ugh*) but that could be fucked (*yay!*). She was an editor, and a reviewer of books and theater. She wrote prolifically: poems, prose, short stories.

She came armed to the teeth with one-liners that, during this modern era, would have made her an overnight Twitter sensation. It was those same quips that gave her the reputation of a wit of the times. And she refuted the tag as frequently as possible. She perceived herself, instead, as a wisecracker – a trait of which she despised. The distinction she made, “There’s a hell of a difference between wisecracking and wit. Wit has some truth in it; wisecracking is simply calisthenics with words,” demonstrates a boredom with the snappy yet empty observational bits tossed around the thought-pool by herself and her contemporaries. Furthermore, she was hard pressed to consider herself a writer – as in, *she did not*. Not even after all the publications (over 300 through the 1920s alone), or after the O. Henry award she received in 1929 for “Best Short Story of the Year.”

To her, a writer wrote and published novels. She took a 50-year stab at

writing a novel and never finished it. She had been caught saying, “I hate writing, I love having written.” This makes me so angry because she acknowledges herself doing the act of, or having done the act of, but for whatever reason, was unwilling to take the tiny leap to the notion that she qualifies for the title. She repeated this self-sabotaging thinking throughout her whole life; she lived until she was 73. She tried to commit suicide somewhere around six times during the interim. It seemed to be a constant battle between going balls out and pulling back hard. But she was stunning, and so insightful, and just so soaked in alcohol that by the end of her career, she had been asked to step down from a number of professional positions and had alienated most of her peers.

In 1967 she had a heart attack and died alone in a hotel in New York City. While she never wrote an autobiography, Barry Day, editor of *Dorothy Parker: In Her Own Words*, pieced together her work in chronological order as a method of laying out the bones of what an autobiography might read like. Most of her poetry and short stories stand semiautobiographically independently, so to string the parts together is not a far stretch for the imagination. As with many creative folk, Parker had a laundry list of lovers and affairs. She was married three times – twice to the same person, Alan Campbell. However, the “one that got away,” the one she spent 45 years trying to get over, was Charles MacArthur. In the foreword, Day writes: “Read her work in total, and a striking personal portrait emerges of a woman perpetually drawn to but disillusioned by love” (Day xiii).

I get the impression none of her years were remarkably easy, but 1928, 1929, and 1930 are most notable. In 1928, she divorced her first husband, and her lover MacArthur left her. This was after she had an abortion to which he was a contributing factor. Following the abortion, she slipped into a deep bottle/depression and made her first attempt at suicide. In 1929, she published her award-winning short story, “The Big Blonde.” With very defined gender roles, through the eyes of the main character, Hazel, men are fishing for women as entertainment, and the women gaily shimmer around to be taken out and shown a good time. Throughout the course of the story, men regard women favorably as being “a good sport.” The women of the story want to be seen as such: “Men liked you because you were fun, and when they liked you they took you out, and there you were. So, and successfully, she was fun. She was a good sport. Men like a good sport.” Then Hazel gets married, more because she likes the idea

of marriage rather than to marry the man himself. But the marriage alters the carefree nature of her youth and brings it to a resolution of carelessness. Without a single extra word, but without losing an iota of the whimsicality of the story's outset, to the deepening muddiness-turning-black viciousness of the marriage, Parker is able to color the scene of Hazel's evolving outlook. Her fun, fancy-free days of drinking socially begin to show signs of dependence on alcohol as a social lubricant to interact smoothly with her husband: "Herbie pressed it on her. He was glad to see her drink. They both felt it might restore her high spirits, and their good times together might again be possible."

Long after her divorce, and the various encounters with men having lost their charm, Hazel/Parker trudge through the slop of booze-fueled depression: "She was tired so much of the time. Tired and blue. Almost everything could give her the blues. Those old horses she saw on Sixth Avenue—struggling and slipping along the car-tracks, or standing at the curb, their heads dropped level with their worn knees." The interesting thing here is the transitional phrasing indicating the changing times, overlapping her increasingly pervasive sadness. By the end, she's overwhelmed herself in despair, and upon waking from a failed overdose attempt, goes right back to where she was just before she downed the bottle of pills: "Maybe whiskey would be her friend again. She prayed without addressing a God, without knowing a God. Oh, please, please, let her be able to get drunk, please keep her always drunk."

Perhaps writing this story was cathartic for Parker. For me, it reads like a screaming cry for help. Of course it's well written, and from beginning to end the reader is able to ride the roller coaster of emotions through the arc of the storyline. One of the artistic points Parker seemed to excel at was to capture an emotion or a series of emotions and effectively deliver the reader through the tumult and turmoil the characters endure.

In 1930, Parker published a super short story called "A Telephone Call." It's an exploration into the tedium and frustration of being ignored by a crush. The narrator uses multiple strategies to gain some sense of control over herself. She uses a little magical thinking, "If I didn't think about it, maybe the telephone might ring. Sometimes it does that." She prays to God, curses the phone, and (the fan favorite) second-guesses herself on whether or not she is remembering the conversation correctly: "Maybe he said for me to call him up, at five." This story

carries a frenzied tone the other did not, but the intensity the author provides is similar. Also, while the main characters of each story have very different mannerisms, there was one distinct commonality of the two: the idea that men are not welcoming to sad women, and so it is paramount to remain upbeat and gay regardless of whatever is churning beneath.

I came away from all of that I read of Parker's and about Parker by oscillating uncomfortably between sophomoric nihilism and a hunger to live as fully as possible.

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Hatha Yoga to Bikram: My Experience

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Physical Education 2900 | Introduction to Hatha Yoga
Professor Diana Treglia

Yoga has been practiced and perfected for centuries and is a great way to improve and maintain physical as well as mental well-being. Yoga has several branches, sub-branches, and variations that allow you to choose the best one given your overall health and fitness goals. Yoga sessions are known to impart strength to your muscles, add flexibility to your body and relax and rejuvenate the mind as well. Hatha yoga and Bikram yoga are two popular systems, and they are quite different from each other in several ways. Hatha is a general category of classic yoga that includes traditional yoga styles. It is a long-standing system that involves the practice of *asanas* (yoga postures) and *pranayama* (breathing exercises), which I have begun to learn in my PEC 2900 course. Whereas, Bikram yoga is a hot style of yoga that incorporates asanas from hatha. For this assignment, I chose to write a paper on my personal experience with Bikram yoga.

Hatha yoga is a division of traditional yoga that highlights and emphasizes physical movements to master body and mind, allowing both to draw from an external force (Mallinson). In Sanskrit “ha” refers to “sun” and “tha” to “moon,” both representing counter-qualities or opposing forces. These forces originate from the same source, which is symbolic of the dualistic principles, a duality and balanced true essential union. Additionally, the complete word *hatha* in Sanskrit means “force”; the term is typically interpreted as “forceful yoga,” as the postures require some physical effort (Birch). In the Indian tradition, hatha yoga is one of the main traditions related to tantra yoga (Sanatan Society). Hatha yoga concentrates mainly on the practice of postures *asanas* and breath control

pranayama to energize the subtle channels *nadis*. Continual practicing helps to bring peace to mind and body, and prepare the body for deeper spiritual practices such as meditation. In hatha yoga, the exercising of asanas has two essential objectives. Firstly, to develop and master any real meditation techniques one must practice postures until perfectly comfortable in poses for extended periods of time. Secondly they are to bring strength, health, and energy to the body and primarily the mind through the opening of the *nadis*. The opening of the *nadis* is achieved through not only mastering the postures but also by the power of will, concentration, and meditation. These objectives along with the practicing and mastering of the asanas can lead to the direction of opening of the path to *pratyahara* (gaining control of *aharas*) and *dharana* (concentration). Hatha yoga is relatively gentle and slow; asanas are held for a longer period. Hatha is especially recommended for beginners or students who prefer a more relaxed style of yoga or are learning the basics. Some approaches to hatha yoga, however (e.g. *ashthanga*), can be quite vigorous and physically demanding.

Bikram yoga is a sub-branch of the traditional hatha. The style and postures of Bikram are mostly derivative from traditional hatha techniques. Bikram was founded and popularized in the early 1970s by a devoted Indian yogi, Bikram Choudhury. Choudhury is highly regarded by devoted followers and celebrities. He started practicing the asanas at the age of five and eventually developed his style (Bikram YCI). There are two major differences between hatha and Bikram yoga. Firstly, in Bikram Yoga Beginning Series classes, the sessions are 90 minutes long and consist of a series of consistent, copyrighted twenty-six postures and include two breathing exercises. Secondly, Bikram yoga is a hot yoga style. Rooms are heated to 105°F (40.6°C), with a humidity of 40%. Other than the instructor, a Bikram class is the same no matter where you go. The suggested benefits of Bikram yoga are that it speeds up recovery from injury, enhances flexibility and cleanses the body of toxins. According to the official Bikram yoga website, the series of postures are intended to “systematically move fresh, oxygenated blood to 100 percent of your body, to each organ and fiber.” The poses are supposed to be done in a specific, unchanging order, to achieve the desired benefits (Live Science).

On Friday, April 7, 2017, I went to Bikram Yoga Park Slope (1120 Washington Avenue, Brooklyn). I enlisted my mother as my partner as it was my first Bikram

class and I felt it would be better as a shared experience. Located a few blocks from my house, it was convenient and ideal for me and my busy schedule. Before attending the class, I did basic research on the asanas. I knew the class would be hot, so I prepared by drinking more water through the day and made sure to bring a frozen bottle of water. We arrived 25 minutes before the class started to get familiar with the facility.

We were greeted by the receptionist who checked us in and directed us to the “coat/shoe rack.” There is a no-shoes policy beyond the entrance of the studio. The coat rack was constructed of thick free hanging twine ropes that cascaded from the ceiling. The studio environment and décor is that of a minimal New York industrial style loft. The walls are exposed red brick with some contemporary and South Asian elements sprinkled throughout. Overall the décor was good, simplistic and calming; the studio smelled of sandalwood.



Figure 1: Basic Bikram Series 26 Postures

Upon entering the classroom, nothing could have prepared me for the heat and humidity I experienced. I am from Jamaica, where temperatures can go as high as 100 degrees, but now I must say I felt a bit unsure. The humidity was more of a shock than the heat, as I was *expecting* the heat. I said to my mother, “This must be what the Amazon jungle feels like.” The students were

seated in front of a group of mirrors with the instructor in front guiding us through the poses. The class dynamic consisted mostly of women and only four men, including Francis, the instructor. We started with the standing series of poses, 1 to 11, for the first half of the session, which was for warming the body and detoxifying. Then for the following 15 poses we stayed on the floor. All the postures were relatively straightforward, and I did not feel as if any of the postures were overly complicated or confusing. I particularly liked the poses that engaged the lower, middle and upper areas of the back and abs, as those are problem areas for me. I struggled with some postures due to my flexibility, the most with 4, 6, 17-19.

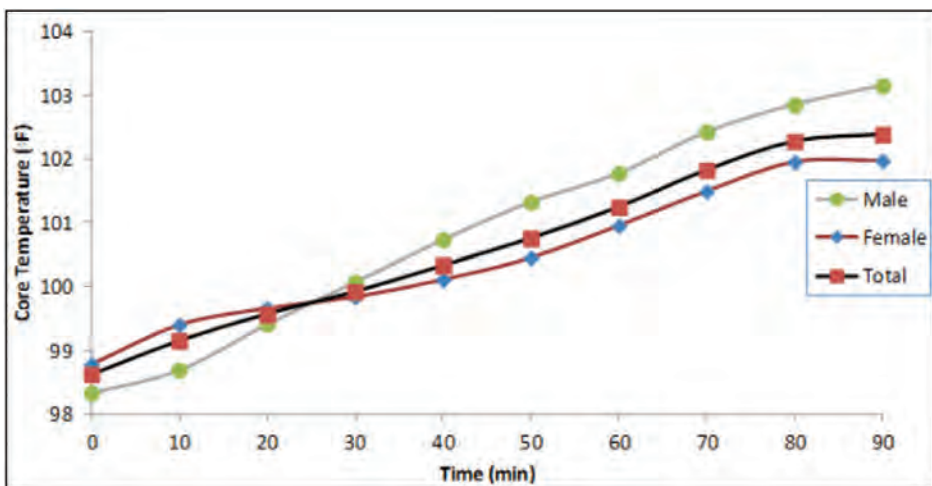


Figure 2: Body Temperatures During 90-Minute Bikram Yoga Class
Source: American Council on Exercise (ACE)

The sessions are carried out in hot and humid rooms and cause excessive physical exertion and sweating. The sweating involved in Bikram makes you feel as if you are losing a bunch of pounds, but the sweat makes the postures that involved grabbing a limb extremely complicated. Throughout the last few poses, I felt myself getting more and more light headed but somehow managed to push through, and my mom was right there in case I passed out. The only issue with my Bikram experience was after the class had concluded during the final relaxation. Our instructor opened the door to let in some cool air so we could all start to regulate our body temperature. I remained in savasana for about five minutes; however, as soon as I made it into the hallway the cooler air intensified

my lightheadedness. I made it to the changing room where I turned the shower on a hot temperature, stood under it and slowly kept bringing the water down to a cooler temperature. I was not so dizzy as I continued to change. The instructor advised me that next time I should stay in the room for an additional 5 to 10 minutes through savasana to give my body time to acclimate to the contrast of the cooler air temperature in the hallway. My mother handled the Bikram environment much better than I did. Afterward, throughout the rest of our day, however afterward we both felt invigorated, calm, stress-free and limber.

The next morning, I woke up with a migraine and was sore in a multitude of areas from my thighs and back to my neck muscles and obliques. The soreness was not such as one would feel after an injury; it felt like soreness after an excellent workout. In hindsight, I should have practiced proper hydration. Hydration of not only water but electrolytes is essential for the healing of the body. Due to increasing body temperature, both salt and water are depleted through sweat glands gradually for a 90-minute period (ACE). The heat and mineral depletion encourages added water and electrolyte intake during and throughout the session. Although there is an often substantial fear of the heat by newbies of Bikram, few people have any adverse side effect like I experienced. Will I do Bikram again? Unlikely. Not only did I not like the sweltering heat and humidity I did not like the dizziness and nausea I felt after completing asanas. Moreover, Professor Diana Treglia has taught me traditional yoga and cultivated my knowledge of the diverse yoga branches; I will now continue to seek a style of yoga that suits me completely. In the words of K. Pattabhi Jois, “Yoga is possible for anyone who really wants it. Yoga is universal.”

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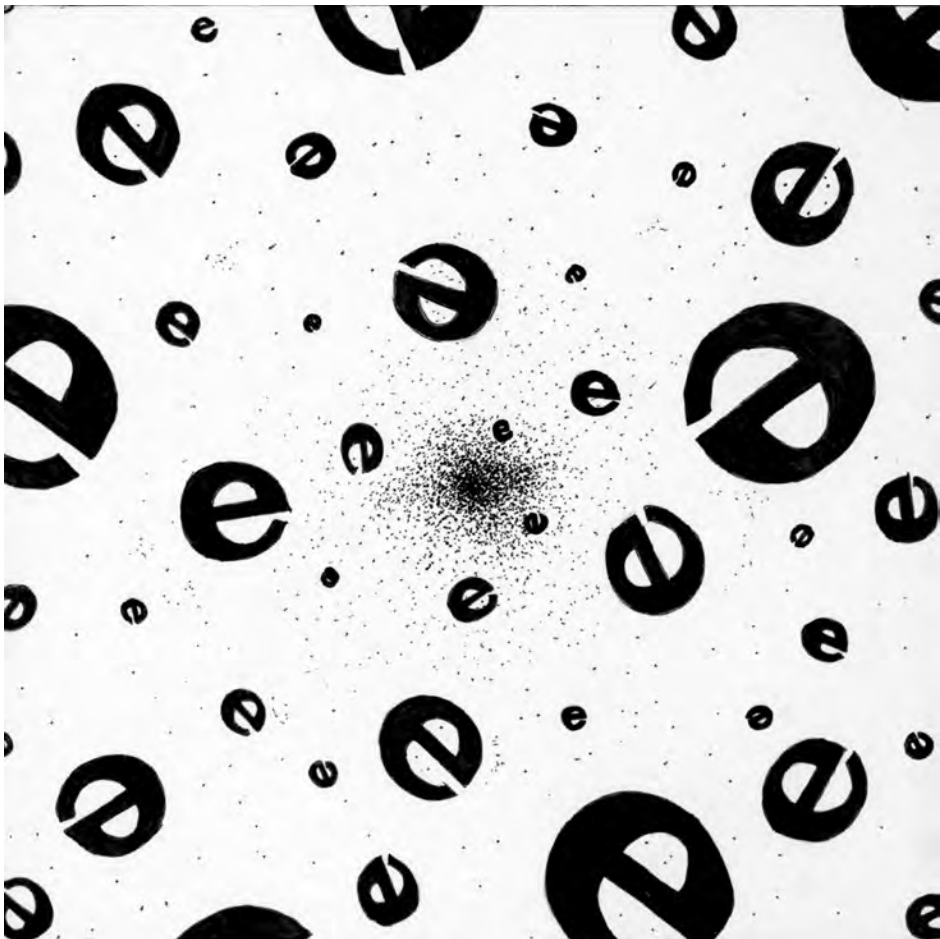
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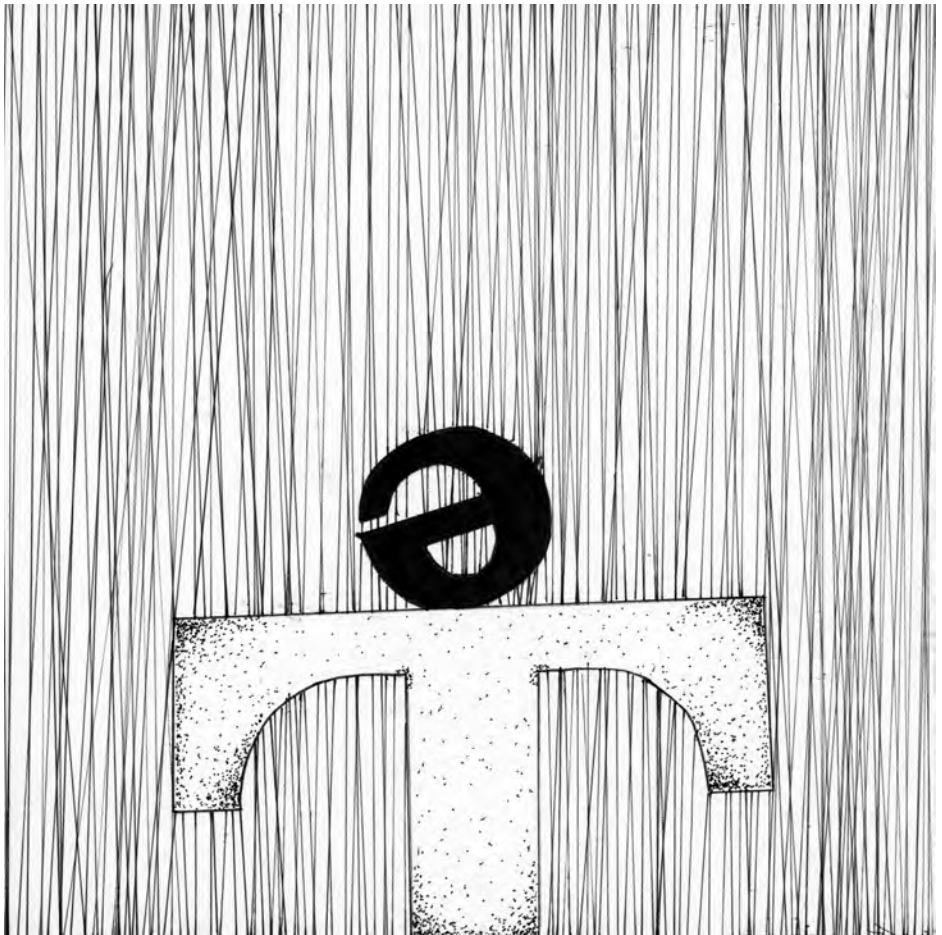
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Typographic Experiments

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Spring 2017
Art 7400 | Experimental Typography
Professor Valerie Sokolova





Por Favor, Let Me Shine: **The Importance of Early Childhood Education for the Hispanic Community**

Iris Nolasco

Spring 2017

Psychology 3000 | Child and Adolescent Development

Professor Carol Carielli

Can you imagine children begging for knowledge? Well, this is what happened one day while I was sitting on one of the benches at my church. A little boy named Joshua tapped my arm and with tears in his eyes told me: “Sister, my parents do not love me.” I asked Joshua why he thought his parents did not love him, and I told him that every parent loves their children. He said, “Because when I ask them to send me to school they say no, and I want to go.” I did not know what to say, and I wondered why he would say something like that. I took him back to the playroom where other children the same age as he (four to five) were playing. I stayed in the room for a few minutes, and I noticed that the other children did not acknowledge Joshua. So I took him back to his mother, Johanna. I told her what Joshua had told me; she did not seem so surprised. I asked her why he was not going to school if he was already four years old. After hearing her answer, I felt confused; I do not know if I was angry with her, or if I felt sorry for her. But I do know that I had a feeling of helplessness because I was not able to appease Joshua’s hunger.

Joshua was hungry for knowledge, and wanted to be accepted by his friends and eager to communicate with them. However, his mother, the person who is supposed to take care of him, to help him grow physically and intellectually, was blocking his possibilities to do so. Johanna told me that she was afraid to send her son to school because she was not able to communicate with the teachers because she speaks Spanish and they speak English; and that Joshua was too small to deal with the stress of not being able to talk with the teacher and the other children. As a mother of a boy, I thought, there would be nothing that

could stop me from letting my son get the education he needs. I am responsible for his wellbeing. However, as members of society we are all responsible for the success and health of our children.

In this paper I discuss the importance of receiving early childhood education. I also discuss some consequences of not getting it, and some steps that we can take to overcome that deficiency. Psychologically, children can be adversely affected by not attending school at an early age. The consequences can be catastrophic. Therefore, let us give children the opportunity to grow intellectually, socially and physically by taking the necessary steps to make education available for everyone, especially those children and families that face challenges like a language barrier, cultural differences, and financial issues.

Education is vital for cognitive, social, emotional and physical development, especially when children are young. In *The Developing Person Through Childhood and Adolescence*, Kathleen Stassen Berger lists some factors that are important to know and understand about the developmental process of a child. In the first two years, children develop their fine and gross motor skills; they have the capacity to use their imagination and engage in sociodramatic play or pretend play. This is when biosocial development is taking place (Berger 127, 145). Furthermore, as children grow they gain the ability to remember things. Around eighteen months, children develop their emotions, including self-awareness, pride, shame, and embarrassment (Berger 172, 197).

Development in early childhood (two to six) is critical. Cognitively, children have developed senses and motor skills, and now is when they start exploring new objects, symbolic thought, language, and imagination. Moreover, their social learning is rooted in social context. Children are curious and observant of their surroundings. They begin asking questions and seeking answers from educated mentors because they need to be stimulated and directed by other people with more experiences (Berger 262). The parents can be good mentors, but the children have the need for other mentors like teachers and peers. They need to socialize and learn from others and interact with others so they can develop their social skills and enrich their vocabulary. At this stage, children can easily learn new words.

Children need to be stimulated by the environment because this is when they are ready to learn how to read; however, if a child's auditory system is not

being stimulated, the child will have disadvantages compared to others who have been stimulated (Semrud-Clikeman 5). Yet, how can children accomplish this need if they have been kept at home? How can they grow in this environment, stimulate their senses, their brain? A lot of young children, especially from minority families, do not attend school for various reasons.

The Hispanic community, for example, is highly affected by this issue. It faces a lot of challenges. For example, Joshua did not attend early childhood school because his parents do not speak English and could not understand and navigate the process. Joshua has an older sister, Daisy. Johanna registered Daisy in a pre-k school in America, but could not help her to continue because when it was time to converse with teachers and other parents about the school program, she did not understand. So Johanna decided to send Daisy to relatives in her country in Central America until she was old enough to find solutions on her own. The language barrier is perhaps the most significant issue for children not attending early childhood education programs. According to the National Education Association, approximately 80 percent of the children learning English in the United States are Hispanic. However, only approximately 2.5 percent of the teachers who educate these children have a degree in ESL or bilingual education (NEA 2). This information is frightening; there are not enough teachers prepared to welcome these children into a classroom where everything looks and sounds strange to them. This scenario creates panic in the children, and of course in the parents as well.

Different religious beliefs are another important factor that prevents children from attending preschool. In the Hispanic community, and in other minority groups, this is an issue. However, I know more about Hispanic people being affected because I am Hispanic. I have family and friends who I can talk about it with. Some parents do not agree that their children should learn about evolution. Therefore, they prefer to wait until the child is old enough to understand their own religious values. “So they do not get their brain washed,” said a mother I spoke with. Every time I hear this comment from a parent, I can see their lack of knowledge. They sound so convinced in their beliefs. We have to find a way to reach these parents, to inform and educate them, so their children do not suffer the consequences.

Financially, even though in most states early childhood education is free,

dropping off, picking up, and attending school activities require time. Some families cannot afford to lose work hours. Therefore, they opt for other solutions. For example, if they have other relatives living in the same house it's more convenient for the parents to leave the children at home under their care than worrying about who is dropping off or picking up their children from school. This arrangement is common in many immigrant cultures. Those children are growing up as stragglers in the society and, as I mentioned before, environment plays a huge role in cognitive, social and physical development. Certainly, at home the caregivers try to fulfill their children's basic needs: food, water, shelter, clothes and, most importantly, love. The children may be getting what they want, but what about what they need? Children need intellectual or cultural development as well.

Children's intellectual, social, and physical needs are provided in the environment of a classroom. I want to share some of my experiences at Public School 222 in Brooklyn, where I have seen first-hand the benefits of pre-k. Every Monday, I teach pre-k children new songs and movements for one hour. While they are singing and dancing, they gain self-esteem and develop motor skills, but they are also developing other skills: discipline, following instructions, respecting personal space, taking turns, listening to others, and much more. Some tasks may sound easy to accomplish, but they require guidance and effort. Children need to observe other children doing the task and be instructed by a well-prepared teacher. In this class there is a beautiful girl named Maria. She is very quiet and shy. The first day I came to the class the teacher asked me if I spoke Spanish, and she mentioned Maria. She said that I would probably be able to encourage her to talk. Maria did not speak at all the first day. I tried in English and I tried in Spanish, but I did not hear a word from Maria. Now, five weeks later, Maria is one of the more vocal children in my singing group. Maria has overcome some of the obstacles she faced in the beginning. She started speaking English, she is not shy anymore and now she has new friends who she interacts with.

These are some of the abilities and experiences that a child should have when they enter kindergarten. However, when children are kept home or sent back to their native country the hope of an enriched future disappears. Without attending pre-k, they will face this problem in kindergarten, where it is going

to be harder for them because of the gap between them and those children that did go to early childcare. For instance, Daisy, Joshua's sister, is returning to America because this is her country. She will be older and will face the same challenges: language barrier, cultural differences, and discrimination from other children. The gap is going to be even greater, and it will take much longer to catch up. Some of the consequences of not attending preschool programs can be devastating. There is a higher percentage of dropping out of school for these children; therefore, getting out of poverty is almost impossible because they are at a disadvantage to those who do finish and graduate.

The positive outcomes of attending preschool are enormous. According to W. Steven Barnett, "Higher quality child care is associated with better cognitive and social development both while children are in child care and during their first few years of school" (Barnett 27). Research shows that experience and good programs during preschool years influence children's mathematic and reading achievement at ages five and six. This is one of the benefits in the short-term. Research on long-term benefits shows "preschool programs can mean the difference between failing and passing, regular or special education, or staying out of trouble" (Barnett 43). Studies about early childhood schooling keep showing how important this is for the success of a child. Their future depends on it. Another advantage of an early childhood school is that most of the teachers have the knowledge of how development happens. Each child is unique; therefore, they all learn at a different rate, so a teacher has the understanding of these differences. For example, a teacher is able to notice if a child's development is normal or not. The teacher can be the catalyst for having the child evaluated by a specialist and offered intervention programs if necessary. However, children that do not attend early childcare do not have this opportunity and their learning process may be affected for the rest of their lives.

There is a need for the society to take action on the issue of early childhood education. According to researchers, "children of immigrants constitute the largest minority and the fastest growing segment of the U.S. child population." In 2010, one out of five children came from an immigrant family, and in 2020, it is estimated that the number will be one out of three. Most of these immigrants' families are Latinos; thus, most of these immigrant children are Hispanics (Toppelberg and Collins 2). In 2015 the percentage of Hispanic children enrolled

in preschool program was 30%, in contrast to Whites 40%, Blacks 39%, Asians 40%, and American Indian/Alaska Natives 48% (NCES 3). As a society, what are we doing to reach these young children to help them get the education they need to develop in multiple domains?

I already mentioned some of the reasons why children do not attend preschool programs. We cannot force parents to send children to preschool, but we can educate them about the advantages and disadvantages of early education. Researchers mention some of the suggestions immigrant parents gave to educators after they watched a twenty-minute film showing a typical day in a NAEY-accredited preschool in Phoenix. The suggestions included: Be affectionate with children because this makes children welcomed; be patient—understand that children that do not speak English might prevent them from learning as quickly as others; be respectful with parents—having a translator in the classroom, in the parent-teacher conference, and translating the letters into their language can be very helpful. Welcome parents to the classroom—parents understand better what children are learning if they observe what they do (Adair and Barraza 34-38).

Parents are not asking for too much; they are just asking to be part of their children's education. Parents' involvement may be the piece missing in the puzzle. Communication between parents and teachers is essential for a better education for the child.. The system must be prepared to support the teachers in being responsible to the needs of immigrant children and their families.

In the last two weeks I have been reading about the importance of early education. I am also familiar with this issue because I know many children that are being affected by the lack of being included in an early childhood education program. The need for inclusion is clear. I know the advantages and disadvantages of early childhood education and I am going to share this information with my church members, family, friends, and anyone else who can benefit from it. It might not be enough to change the statistics but we have to start somewhere and it might change one life.

Joshua is a smart boy who can accomplish anything he wants, but his parents have such low expectations of him that they are limiting his abilities to be successful in life by denying his early childhood education. His parents are neglecting him not because they want to, but because of their lack of knowledge

of how Joshua can be affected by not attending early child care. At this stage (2-6 years of age) children have the need to interact with others so they can develop their social, physical and cognitive skills. Children are like the stars that make the sky shine, with the only difference that children cannot shine if they do not have the proper education. They need advocates. So, let us, the neighbor, the teacher, the system, give these children the education they need by recognizing and being sensitive to the cultural barriers children of immigrant families face. Then we can move forward and knock those barriers down so the children can shine. And let us hear Joshua's voice, "Por favor, let me shine."

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Idealistic Myth vs. Genuine Reality: The Place of Immigrants in the Twenty-First Century

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The fundamental history of American society and the supposed aims of our predecessors have been controversial topics even up to our present day. Many Americans disagree about how America became the “melting pot” that it has become today. Immigration steadily grew in the sixteenth and seventeenth centuries due to the Age of Exploration and the imperializing force of European countries. As time passed, immigration became a central concept, a sturdy base, a philosophy for the people who sought freedom of religion, economic opportunity, and liberty in the new world. It was the rise of a new immigrant nation.

Throughout American history, many assertions from profound mottos, poems, and speeches illustrate the image of a welcoming country with its own unique culture built and prospering by immigrants. However, just ten years after ratification of the Constitution in 1788, the federal government started to apply restrictions over the immigration policy. These changes created confusions over the inclusion and distorted perspectives among native-born people and immigrants. The dream of a celebrated diverse nation was abruptly jeopardized by government restrictions on immigration during different periods and regarding the party that led it, or by public attitudes about immigrants, often distorted by the media. The “national narrative” and the governmental approach toward immigrants have been susceptible to the drastic events that made a lot of immigrants feel vulnerable. The terrorist attacks on the World Trade Center shifted the perspective of the majority view, and led Americans to further question the need for immigrants in our country, as well as their loyalty

to their non-native nation. In the twenty-first century, the “place” of immigrants has become challenged again on social, political, and economic levels; perpetuating this case is a visible fissure within American society and a stalemate in governmental decisions over comprehensive immigration reform that would address a range of issues and settle a compromise between pro-immigration and anti-immigration interests.

In *U.S. Immigration in the Twenty-First Century: Making Americans, Remaking America*, Louis DeSapio and Rodolfo O. de la Garza provide concrete information with the outline of the bills and policies of immigration in America at the broader level of a federal approach, as well as at the narrow specification of the states’ enforcement. They trace the historical background of American history to clarify and evaluate the current position of naturalized citizens, long-term, permanent residents, guest workers, and unauthorized immigrants with an understanding of what has been leading to recent changes. The specific focus on the contemporary immigration comes in the chapter “Immigration Post-9/11.” The authors show the importance of interrelationships of minorities and immigrants to compare and contrast their similarities, attitudes, and how they usually correlate to one another. The book leads the reader to re-think what immigration means to America. Is America supposed to be Ellis Island, the Statue of Liberty (“give me your poor ...”), an idealistic blend of harmonious cultural diversity, or has America done a 360-degree turn in the way it perceives immigrants? And, if so, who is at fault? The information helps us critically analyze and distinguish between an idealized, sugarcoated illusion of American immigrant praising ideology and actual attempts of authorities and hegemonic groups to place immigrants in an allotted position within American social class structure.

One of the celebrated events of American history is represented by the arrival of the Pilgrims to Massachusetts in 1620. Their settlement and eventual revolution for sovereign rule to achieve freedom from the British monarchy and from religious persecution has been highly glorified and has long set an idealistic national narrative for future generations. At the same time, we have to keep in mind the unpleasant history, the importance of the African slaves who were forced into their abused role while bringing colossal contributions. When the United States took its first steps into the world as a new nation with

its ratified constitution, it established three fundamental powers: the legislative, executive, and judicial. Immigration laws emerged in order to save the integrity of shared ideas within the new society. In 1798 the Alien and Sedition Acts established reporting requirements and authorized deportation of aliens perceived to be dangerous to the United States.

In the first Great Wave of immigration in 1840-1860, there were high numbers of Germans and Irish immigrants. There was a surplus of unsettled territory, and a dire need for labor: this helped to reduce the opposition toward immigration. Back then there were few social services and programs; therefore, the level of economical success varied based on ups and downs of the economy. Although the average immigrant was poorer and less educated than the average American-born citizen, this gap didn't cause much of the conflict.

The Second Great Wave between 1870-1920 had a more diverse population of immigrants that was coming from Asia, West Europe, and Africa. The federal government asserted its authority to regulate immigration, which led to immigration restrictions and national origin quotas. In 1917, the "barred zone" excluded all Asians from immigration. "It was with the growing numbers of these 'new' European immigrants that anti-immigrant concerns began to rise again. In the popular immigration, the "new" immigrants came to be seen as less capable than their predecessors – less capable of working, less capable of learning American ways, and less capable of assimilating" (DeSipio & de la Garza 67). Authorities decided to put a cap on immigration per year and ban certain nationalities. It can be considered cruel if we look at the lives of immigrants who had their families in both countries and who had to choose how to deal with the devastating dilemma. During this period, Congress unwittingly created unauthorized immigrants by establishing categories of ineligible immigrants. However, in 1929, Congress passed an act in favor of immigration: it was the first program that legalized immigrants who had resided in the United States for eight years.

The turning point of the major immigration era and a huge contributor to contemporary immigration derived from the Immigration and National Act of 1965, also known as the Hart-Celler Act. This act established an important outline for immigration expansion from other countries and certain standards for permanent residence. One of the leading criteria were family unification ties,

family members of U.S. citizens and permanent residents (including spouses, children, parents, and siblings). Another criterion was a person's ability to work and his or her occupational skills. This law also abolished the "National Origin Quota" system. As a result, the numbers of immigrants increased. However, the downside of this act made it clear that guest workers would not be allowed to stay after the expiration of their visas. At this time, illegal immigrants continued to pass through U.S. borders, but the public and Congress generally did not pay much attention. In fact, unauthorized immigration was supported by the Naturalization Service (INS) and the agricultural lobby. It was in the interest of corporations to hold on strongly to illegal immigrants to have a cheaper workforce. However, in the mid-1970s, the public feared even a larger number of unauthorized immigrants. In 1986, the "Immigration Reform and Control Act" (IRCA) legalized the status of long-term unauthorized immigrants. With that reform, it became illegal to employ undocumented immigrants. Only in 2005 was the government able to implement these newer sanction provisions. The government faced continuous opposition from employers, unions, and the chambers of commerce. It was economics that greatly influenced the immigration laws of this time period, and the future of our immigrants.

Soon, America's fate took a drastic turn for the worse with the attacks of 9/11. This caused Americans to question every aspect of national security. Immigration was one of the most important topics to re-address, especially since there was great suspicion that the attacks on the World Trade Center were the actions of illegal immigrants. In fact, it was alleged that the terrorists were legal immigrants who came into America by means of student visas. After 9/11, policymakers increasingly questioned the political and organizational connection of immigrants to American values. Mass hysteria strengthened public prejudices; Americans were scared of immigrants who carried any physical resemblance or behavioral traits to the alleged 9/11 terrorists. President George Bush, with the approval of the Department of Homeland Security, passed the Patriot Act, which mostly targeted suspected individuals. Additionally, in 2002, the INS re-implemented the 1996 laws that established a database to track students with student immigrant visas. In 2003, an administrative ruling by Attorney General John Ashcroft gave extended power to officials to detain indefinitely unauthorized immigrants who had any terrorist ties. To the present day, the attacks on the

World Trade Center still cast a huge cloud of doubt over immigrants of Arab descent.

Eventually, the nation must reach a public consensus: it will have to “decide either to create a path for many or all unauthorized immigrants to join US society, as the majority of the US Senate and President Obama have proposed, or to deport them” (DeSipio & de la Garza 98). Campaigns supporting immigration have been met with negative public feedback. National surveys have revealed the mistaken belief that persists in our society regarding the population of unauthorized immigrants. Two-thirds of the general public believe that the majority of immigrants are undocumented. In fact, the Pew Research Hispanic Trends Project says that approximately 25 percent of immigrant residents in the United States are unauthorized immigrants. Unauthorized immigration appears to be strongly condemned by the American public. Immigration by itself doesn’t seem to be perceived as something destructive, yet most people want to ensure inviolability. According to a 2014 Gallup poll, 41 percent of American adults hold on to the idea that immigration should be decreased, 33 percent argue that it should be maintained at the same level, and only 22 percent think that it should be increased.

With an overwhelming majority against immigration, how can America possibly allow immigration to continue? It is difficult for immigrants to feel secure, especially if the state that they reside in has a general outcry against immigration, and enforces rigid ordinances. According to the Constitution, states have the right to make laws independent of federal rules. Some states have, in turn, made laws that have turned the tables on illegal immigrants, who prior to these laws felt more secure under a more relaxed federal rule. Such an example can be seen through Arizona’s Senate Bill 1070. This bill imposed penalties on immigrants not having evidence of legal status and on people sheltering, hiring, and transporting unauthorized immigrants. Approximately twenty states followed Arizona’s path and contemplated similar legislation. Estimates suggest that undocumented adults have even higher labor-force participation rates than those U.S. born, and that the American economy would not sustain itself without new numbers of immigrants each year. Immigrants’ presence helps the American economy thrive. Therefore, “the nation’s labor needs ensure that any eventual immigration reform bill will maintain or increase current immigra-

tion levels” (DeSipio & de la Garza 209). Most people do not want to see an increase in numbers of foreigners, but they would have to admit the immigrants’ contribution and their importance to the country’s overall wealth. There is a phenomenon where federal funding and services for immigrants are receding, but at the same time, taxes paid by immigrants exceed the cost of the services they use. Most of the benefits they receive (public education, public safety, and social services) are provided by states, and as we know, each state has its own approach to immigrants. Therefore, the benefits that immigrants receive vary vastly from state to state.

Eighteen states allow unauthorized immigrants who graduate from state high schools to attend state colleges at in-state tuition rates. Three states, Arizona, Georgia, and Indiana, ban unauthorized immigrants from receiving in-state tuition. South Carolina bans unauthorized immigrants from enrolling in state colleges. Eleven states allow or are planning to allow unauthorized immigrants to obtain state driver’s licenses. Few things have been done by the states to make adapting to America easier and quicker for new immigrants. On the one hand, you have new immigrants who lack the necessary resources to adapt to everyday life, and then you have the bigots who blame immigrants for their inability to learn the language and assimilate. All immigrants, with the exception of naturalized immigrants, are subject to deportation if they commit a crime. The unauthorized immigrant, even with legal residence, is not guaranteed equal rights, despite living under the same Constitution as everyone else.

People wrongly assume that most immigrants possess an excessive attachment to their home country and that they desire to go back and or maintain political ties. In reality, this is a myth, and only small groups of immigrants possess a strong connection to their country of origin. Studies show that most non-authorized immigrants in fact strive to become naturalized: according to a national survey, the majority of Latinos, as many as two-thirds want to become naturalized citizens.

How immigrants fit into our working economy is another issue open to political debate, particularly with job placement. Approximately one-half of the American public believes immigrants are forced to take jobs that require more menial labor and lower pay, jobs that most Americans would never take. This percentage of the public also believes that it is beneficial for the country

for immigrants to take these jobs. However, shouldn't we think about this? Are immigrants really happy and reaching their potential working factory and assembly-line positions? The other half of the public contends that immigrants "steal" jobs from American workers. Many immigrants, contrary to popular belief, are hard-workers, competitive, and desire high standards of living. Unfortunately, the public retaliates by being hostile to immigrants and undermining them. For instance, there is an immigrant in my community, Juan Rodriquez. He lost his job as a busboy at the local deli. Just shortly after, he became a landscaper. Now, three years later, his landscaper business is thriving, and he bought a brand new expensive truck for his work. This showed determination and a strong work ethic. Americans tend to fight to lessen the numbers of immigrants in their neighborhoods, because they think their own privileges, like job opportunities, are diminished. They act as if they are victims of unavoidable demographic change and usually forget about the advantages that they possess by just simply being native, white Americans.

As seen through many examples in this essay, the general position of citizens toward immigrants has been generally negative, and the same negative outlook has been applied to minorities. DeSipio and De La Garza contend: "Although they (minorities) were involuntary immigrants, the slaves, once freed after the Civil War, presented incorporation dilemmas for the polity much like those posed by voluntary immigrants. Furthermore, their forced immigration reduced the demand for the labor of voluntary migrants from Europe" (DeSipio & de la Garza 58). After the Civil War, African-Americans were labeled "free," but continued to have their rights denied. There was confusion (and debate) about how society would react to their new freedoms, and many government acts were aimed at restricting rights for former slaves. We see here how history repeats itself: the plight of African-Americans resembles the plight of immigrants.

My incorporation experience as a white immigrant of Russian heritage, who doesn't necessarily associate herself with a particular culture or religion, has been relatively smooth and positive. Of course, every immigrant's experience is personal and unique. I am sure all immigrants are judged, either positively or negatively, by American citizens based upon their ethnicity, culture, and background. I think it would better not to prejudge; best would be to base opinions of others more so (if not, solely) on their personality and, above all,

their character.

I have been living with my parents in the United States for five years and here we are considered “working-class.” We are permanent residents and came to America by means of a family-unification visa. I am planning to be naturalized within the next two years. I will elaborate upon my personal experience to conclude this essay. I have lived in two very different societies, Russia and the United States, each with its own distinct culture and political agenda. By having the opportunity to live in both worlds, I have learned a lot. Back then, when I lived in Russia, I was discriminated against, mostly because of my black hair, which revealed that I was not a “pure Russian” or Slavic. Prejudiced attitudes toward my parents and me were felt at school, at work, and on the streets; we were described as inferior: that was the label given to me from bigots when I was growing up in St. Petersburg. But when my parents and I came to New York, those negative connotations and sour feelings that I experienced in St. Petersburg were soon left behind. Now, in America, I feel a sense of “place,” and am inspired as an immigrant in this land of opportunity. Here, instead of being considered as a social stain I am encouraged to achieve my dreams. Although I am seen here as an average person who doesn’t face oppression, I have had the experience of being an inferior, minority immigrant in another setting.

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Modern Activism in the United States and the Sociological Problem of Spectatorship Versus Participation

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Activism is the policy or action of using vigorous campaigning to bring about political or social change. Activism is quite possibly one of the most powerful forms of free speech granted by the Constitution. Civil rights in the 1960s weren't earned through roundtable discussion and negotiation. With the rise of social media, the communication and audience of activism has grown astronomically. In the internet age, it is challenging to remain ignorant of current events and even more challenging to form an opinion of them. Those who otherwise wouldn't be are connected through a network of information and misinformation. Despite the convenience of having an unlimited wealth of information at one's fingertips, a complacency of spectatorship is at odds with the drive of participation. Could this lack of participation be due to this complacency?

Whites make up 63% of the United States population while blacks make up 17%. Would this vast majority really be concerned when a small minority is being treated differently by the police if the police isn't treating them, the majority, unfairly? Or is it simply what is referred to as Internet Slacktivism; this is when one engages in feel good measures, such as sharing a post on social media that supports a cause, but in reality having miniscule to no effect on social change. Perspective matters. What a white man sees and how he is treated is inherently different from that which a black man sees and how he is treated. W. E. B. Du Bois developed the concept of double consciousness, "which is a way of talking about identity through the lens of the particular experiences of African Americans. He argued that American society lets African Americans

see themselves through the eyes of others.”¹ One may not be motivated towards activism if one foresees no visible gains from it. There is a poem by Martin Niemöller in the Holocaust Museum that speaks on the consequences of simple spectatorship and lack of participation:

First they came for the Socialists, and I did not speak out —
Because I was not a Socialist.
Then they came for the Trade Unionists, and I did not speak out —
Because I was not a Trade Unionist.
Then they came for the Jews, and I did not speak out —
Because I was not a Jew.
Then they came for me —
And there was no one left to speak for me.²

Activism in the United States paints the picture of the spectatorship versus participatory sociological dynamic.

Most adults have had their values instilled in upon them from early childhood. One could make reference to humanity as being a flock of sheep, shepherded by a leader or the teacher, with an almost inability to deviate from the herd or manner of thinking in which the humans around him or her engages. Being in a flock is not necessarily a bad thing. In groups we experience a higher survival rate. We are social creatures. Isolation from other humans, as seen in our prison system is proven to be detrimental to one's mental health. The conflict arises in the problem-solving ability of the group. If the group is taught the same material in the same method and in a manner that may not be the best method, that group would have difficulty in innovative thinking.

American education, especially through No Child Left Behind, has long relied on the banking concept of education. Our education system and the relationship shared between the teacher and student is fundamentally narrative in nature. In No Child Left Behind or the Common Core standard, the results of the educator's efforts is measured through the performance of tests by their pupils. With their career on the line, a teacher's focus must shift towards making sure their students are prepared for a test; this creates test-takers rather than intellectuals. Paulo Freire says: “Education thus becomes an act of depositing, in

1 Mitchell Duneier and Richard P. Appelbaum, *Essentials of Sociology: Theory and Method* (2008), p. 14.

2 Martin Niemöller. Holocaust Encyclopedia. United States Holocaust Memorial Museum. <https://www.ushmm.org/wlc/en/article.php?ModuleId=10007392>

which the students are the depositories and the teacher is the depositor. Instead of communicating, the teacher issues communiques and makes deposits that the students patiently receive, memorize and repeat. This is the ‘banking’ concept of education, in which the scope of action allowed to the students extends as far as receiving, filing, and storing the deposits.”³ This relationship or narrative between the teacher and student is concrete in its principle, but it is not nurturing the abstract thinking needed to participate in or truly understand why one engages in activism. One who has never experienced a negative encounter with law enforcement may see police officers as those who enforce that which is good; thus, those that law enforcement challenge are in violation of that law and are bad. If a student’s education was through a banking method, he fails to think outside of his own sociological bubble and see that the law is not always good and those who enforce it, the purveyors of justice, are not always blind.

Perspective is at the core of spectatorship vs. participation in activism within the United States. One’s personal views dictate their action or lack thereof on an issue. A conservative family living in Prescott Valley, Arizona, may hold radically different views on immigration than those of a liberal family living in Portland, Oregon. In the melting pot of ideas that is the United States, it is rare that a perspective or idea is not challenged. One challenge that activists must confront is the combination of misinformation, or fake news, and confirmation bias. Confirmation bias is the tendency to accept evidence as the truth when it aligns with any preconceived notion one may hold, often accepting information with little to no fact checking. Confirmation bias fuels the advent of what been come to be known as “fake news.” Fake news and misinformation has been attributed as one of the major reasons Donald Trump won the presidency over Hillary Clinton. On December 4, 2016, an armed man by the name of Edgar Welch marched into a Washington restaurant that was reportedly involved in a child sex ring with the intention of investigating what was known as Pizzagate. Pizzagate was a made-up scandal pushed by the alt right and those who vehemently opposed Hillary Clinton. The fake scandal said that Hillary Clinton and John Podesta were involved in child sex trafficking. While obviously not true, this fake news in combination with a confirmation bias against Hillary Clinton led this armed man to storm a restaurant full of unarmed civilians.

3 Paulo Freire, *The Banking Method of Education* (1968), p. 244.

Media is a powerful tool with the potential to push those who may lack the ability to critically think to not simply spectate but to take action. Participation can pose serious risks to the welfare of society if the participants lack the ability to understand the reasoning behind their actions and instead allow biased media outlets to push lies and misinformation that follow a certain doctrine.

American society has become more subjected to the whims of the corporate machine, a product of capitalism itself. Automated cash registers where customers can place their order and pay on their own are not a byproduct of saving money by cutting out cashiers. Rather they are a product of capitalism, the need to constantly improve on the means of production to remain competitive. “Not only are they slaves of the bourgeois class and of the bourgeois State; they are daily and hourly enslaved by the machine, by the overlooker, and above all, by the individual bourgeois manufacturer himself,”⁴ wrote Karl Marx. Marxist theory highlights the struggle between participation and spectatorship. While engineered through by innovative ideas, industrialization is a mechanism of control, taking control from the masses and replacing that control with automation. George Ritzer says: “Replacement of human by non-human technology is often oriented toward greater control.”⁵

Automation is the antagonist of participation as it eliminates the need and purpose of participating. Automation engages spectatorship, for it encourages one to be passive. With the development of the mechanical process, we’ve become detached from the creation of our goods. Gone are the simpler (so to speak) times of grandma’s recipes, replaced instead with a list of ingredients that nearly require a degree in biology or chemistry to understand. Commercialism is almost monistic in the United States. Large corporations prevent smaller businesses (those closer to the proletariat) from growing. Our economy is built on the consumer being a passive spectator. We consume and thus accept the status quo. In an election, we tell ourselves that our vote, our voice, doesn’t matter. Marx observed: “The bourgeois finds itself in a constant battle. At first with the aristocracy; later on, with those portions of the bourgeois itself, whose interests have become antagonistic to the progress of the industry.”⁶

The Proletariat is at odds with itself. The working class who voted in Trump

4 Karl Marx, *The Communist Manifesto* (1848), p. 165.

5 George Ritzer, *McDonalddization* (1993), p. 256.

6 Karl Marx, *The Communist Manifesto* (1869), p. 167.

defend his cabinet picks by saying that they're "successful" people; therefore, they'll bring that success to their cabinet positions. They'll allow tax cuts for the wealthy and take on the fiscal responsibility themselves, all in hopes of the "trickle down" economic theory.

To overcome the challenges of spectatorship vs. participation, we must begin at our base, that is to say, we must unite the proletariat. More often than not, it is a subgroup within the working class that puts up the biggest obstacle to social change. We remember that we are all human and in order to bring together the masses to advance social justice and reform, we must unite under that common good. We also must make radical change to our education system and make a transition from a test-based system to a fluid system that encourages abstract thought and engages the minds of our youth. We must take steps to combat fake news (without of course, the infringement of one's First Amendment rights) by teaching how to think in a critical manner and to properly assess the validity of information. Through the internet, fake news spreads like a wildfire; but that very same tool can and is used to spread genuine information. It is through the vastness of the Internet that fake news can swim with factual news. Ultimately, it is through the proper education and motivation of society that we can begin to transition from the passive, spectator to that of the participatory role needed in modern American activism.

The Power of the Church

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English 8200 | Violence in American Literature and Visual Culture
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Most people that go through church doors are weary. Like everyone else in the world, they search to exchange their brokenness for wholeness. Through these doors, people believe they will be that much closer to the pearly gates. Churches are considered holy places, and that comes with a reputation of them being all good. Knowing the power the church possesses, it can be difficult to believe it would be used to hurt people instead of healing them. Because of such a belief, it was easier for Deke O'Hara in Chester Himes's *Cotton Comes to Harlem* to manipulate the black community into giving him their hard-earned money in exchange for a better life. He first built a decent reputation as a pious man and continually spoke badly about the white community—something he knew the black community agreed with and wanted to hear. As a result, he used the church for selfish gains, allowing those who believed in him to be dragged along in his sin. I argue that he is responsible for the psychological violence against his own community. He was apathetic to hardworking, God-fearing people who were already victims of an unjust social and political system.

Deke O'Hara, an ex-con, decided to become reverend of a church and change his name to Deke O'Malley. The two names he goes by was to keep his past at bay so that it did not interfere with his plan to rob the black community, as well as to keep the Syndicate from killing him. His intention was to sell a pipedream in the form of the "New Back-to-Africa" movement to the black community. He told everybody that in exchange for a deposit of one thousand dollars, they could move to Africa with acres of land and a better way of living.

This was all a ruse to steal money from innocent, desperate people so that he could live comfortably elsewhere. Unfortunately, the 87,000 dollars he collected from the black community were stolen by another selfish party who then lost the money as well. Deke O'Hara preyed on the hunger of the black community—figuratively and literally speaking—with his New Back-to-Africa movement. This movement appealed to them because it offered them a different way of living and because they believed that Reverend Deke O'Malley was for them. He related to them and understood the struggles they had endured because he was one of them. Because of such convictions, they were not able to see him as the con he always was.

After the money was stolen, Lieutenant Anderson told his detectives, “Well, for one thing, the people here in Harlem, responsible people, the pastors and race leaders and politicians and such, believe he’s doing a lot of good for the community” (Himes 16). Because he had given the police the names of tax cheaters in the past, Deke O'Hara was rewarded money, and he used it to pay the mortgage of the church. It can easily be said that the police could have let the people know of Deke O'Hara's past, but as stated by Lieutenant Anderson, O'Hara helped the police. There was an exchange, of course, but without the help of criminals, most crimes would never be solved (Himes 33).

In *On Violence*, Hannah Arendt writes that power does not rest in the hands of one person: “Power is never the property of an individual; it belongs to a group and it remains in existence only so long as the group keeps together” (Arendt 44). The only way a group divides is when their trust is broken as well as a change in their belief. Without the people's support, there would not have been a Back-to-Africa movement. Deke O'Hara was able to manipulate the people because he preyed on their weaknesses and hopes, which united them.

The source of such weakness and hopes was their common experience. Himes narrates a scene in which Grave Digger and Coffin Ed make their way towards the poorest area of Harlem, looking for a suspect: “Workingmen staggered down the sidewalks filled with aimless resentment, muttering curses, hating to go to their hotbox hovels but having nowhere else to go” (Himes 35). There is self-evident physical and emotional pain that the black community endures on a day-to-day basis. They do not live in the most comfortable conditions. Their life is a routine and a constant struggle of trying to live decently in a world that

placed them on the lowest rank in society.

In an area that was populated by blacks and Hispanics, the Bronx in the 1960s was completely overtaken by poverty. Due to the migrating of many black people, buildings in the Bronx were changed into public housing after World War II. Evelyn Gonzalez writes that the Bronx became “a national symbol of urban deterioration” (Gonzalez 1). She also states that many families’ homes were lost through arson. It was known as the “racial change and white flight.” It became an area of once-filled brick apartment buildings suddenly turned into “rubble-filled empty acres.” This was the life the people from Harlem knew it to be.

Then along comes Reverend Deke O’Malley, their Savior. Finally, they were going to have a change. There was a tangible dream in the shape of free transportation, five acres of fertile land, a mule, a plow and all the seeds they would need for free (Himes 5). Free plus the one thousand dollars they had to put down. I believe the Police Department failed the black community by not exposing a known ex-con when he began collecting their money. Instead, they sat back and watched it happen.

But the price didn’t cause the congregants’ faith to waver. After Deke O’Hara/O’Malley was arrested, the congregation prayed for him at the church to be set free and they still believed, “The Back-to-Africa followers believed. They wanted to believe. They didn’t have any other choice” (Himes 112). The faith or belief they have had in O’Malley is a last resort because the black community has already been promised changes and has yet to see the fruition of them. They have no one else to turn to that can make a promise look as attainable as O’Malley.

In “Chester Himes’s *Cotton Comes to Harlem: A Reparations Parable*,” Rosanna Cavallaro writes: “Part of O’Malley’s sales pitch is to highlight the plight of the people he preys upon, pointing out a new ‘low-rent housing development’ under construction ... Himes indicates the political failures that have made Harlem a difficult place to live by having O’Malley exploit the truth of his listeners’ experience of ‘urban renewal’ in order to gull them” (Cavallaro 113-114). She shows us that Himes was trying to tell us of the political aspect and status of black people in America. Cavallaro suggests that Deke O’Hara sways the black community into believing that his offer is better than the low-rent

housing development that is under construction because they won't be able to afford it. I would also agree that O'Hara uses the black community's financial difficulties as a way for them to buy into his hoax. Deke knows what audience to target and how. It is all for his benefit, and the pain he could leave behind doesn't bring him any guilt or sleepless nights.

Authority is a form of power because it is not something that is forced but rather generated by respect. In Arendt's opinion, authority "is unquestioning recognition by those who are asked to obey; neither coercion nor persuasion is needed ... To remain in authority requires respect for the person or the office. The greatest enemy of authority, therefore, is contempt, and the surest way to undermine it is laughter" (Arendt 45). The church is such a respected place because it is compassionate and understanding. The constant mantra is that God is good and helps those in need. I believe that the church is a symbol of holiness, a place where people gather together to seek God for comfort or simply to thank Him. There is vulnerability entering a house of worship because you come as you are—proverbially naked with an admission that you are in need of help. It is, therefore, easy for Deke O'Hara to manipulate the congregation into believing that the one thousand dollars they are giving to the Back-to-Africa movement is for their trip to Africa—a place that symbolizes freedom. Though O'Malley is but a man, he is considered a man of God by the people because he represents the church. Because of that, he can also obtain the authority the church has and use it.

In *Civilization and Its Discontents*, Sigmund Freud explains that it is delusional to think of religion or God as a reality. Christians, especially, live life constantly dealing with rejection and suffering for the God they have chosen to serve. In return, they are rewarded with everlasting life in Paradise where suffering and pain cease to exist. Freud writes: "If the believer finally sees himself obliged to speak of God's 'inscrutable decrees,' he is admitting that all that is left to him as a last possible consolation and source of pleasure in his suffering is an unconditional submission" (15). If there's one thing God-fearing people believe, it is they are to be patient and that life is not supposed to be easy. Taking the life of Jesus Christ as their example, people believe that in the midst of their troubles and moments God seems distant, their faith is being tested. The black community in Himes's novel has been living a life full of suffering and

rejection. Deke O'Hara becomes a "reverend" because he needs the hope people associate with priests and pastors as shepherds working for God and tending to His sheep. In a way, O'Hara is a sort of "God" for the Back-to-Africa followers, and Africa is their Paradise.

A particular violent scene is rendered by Captain Brice, who tells Grave Digger and Coffin Ed about Deke O'Hara's escape. During some of the prisoners' transition to the magistrate's court, the Back-to-Africa group begins chanting "We want O'Malley," as well as breaking things and throwing stones through front windows. Others begin striking the gate to the driveway with garbage cans. Some toss their bodies onto the front bumpers of the getaway wagon, chanting "make way for O'Malley!" (Himes 119-120). People are willing to do anything to defend O'Hara, not just because they believe in him but because he is going to get their money back, as he has promised. I believe that his supporters would not act this way if they did not believe that Deke O'Hara could bring back their freedom and dignity. The Harlem Residents already have anger towards the police because they do not feel that they are there to protect them and because most of the force is white. The black community has had a history with police brutality and the unfair way they have been operating because of the color of their skin.

After slavery ended in 1865, black people were considered free yet still chained and restricted from living freely. The system was against them and sought out legal ways to constrict the freedom they longed for. In Ava DuVernay's documentary, *13th*, we see how the system used the 13th Amendment to its advantage. The 13th Amendment was added to the Constitution, stating that there is freedom from slavery except if an individual is punished for a crime. The revival of the Jim Crow Laws was also used to continue segregation and the abuse of black people by placing them in a second-class status. Ryan Stevenson states: "very few people appreciate that the African Americans in those communities did not go there as immigrants looking for new economic opportunities. They went there as refugees of terror." In *13th*, Cory Green best describes the suffering of black people as "generational trauma." Himes explains through his novel how the system does not work in the favor of the black community. They have to endure living in bad conditions, never really fitting in the world because of the way they look. When it comes to the Back-to-Africa movement,

the people run towards the opportunity of a better tomorrow because it sounds so much better than the life they are living. The church is a sanctuary to the Harlem residents. It is not just a place to escape but a place to lay down one's heavy load and be free, a place that is supposed to signify acceptance, never caring about what clothes you wear or your financial status.

In *Cotton Comes to Harlem*, the psychological violence inflicted on the black community comes from Deke O'Hara; he uses the people's trust and hopelessness to lie, cheat, and steal. Through the disguise of a person in authority and the power of the church, O'Hara plays a role in the continued abuse toward the black community. It does not matter that O'Hara is a black man, what matters are his intentions and how he becomes a part of the problem instead of the solution by manipulating the black community into giving him money for a dream that is never going to come true. The constant mistreatment of black people has only morphed throughout the years, finding more accepting ways yet visible to the moral naked eye. The people of the Back-to-Africa movement see O'Malley as their Moses who will lead them out of Egypt and into the Promised Land because he symbolizes the hope and the trust they have had in God throughout their suffering and the suffering of their ancestors.

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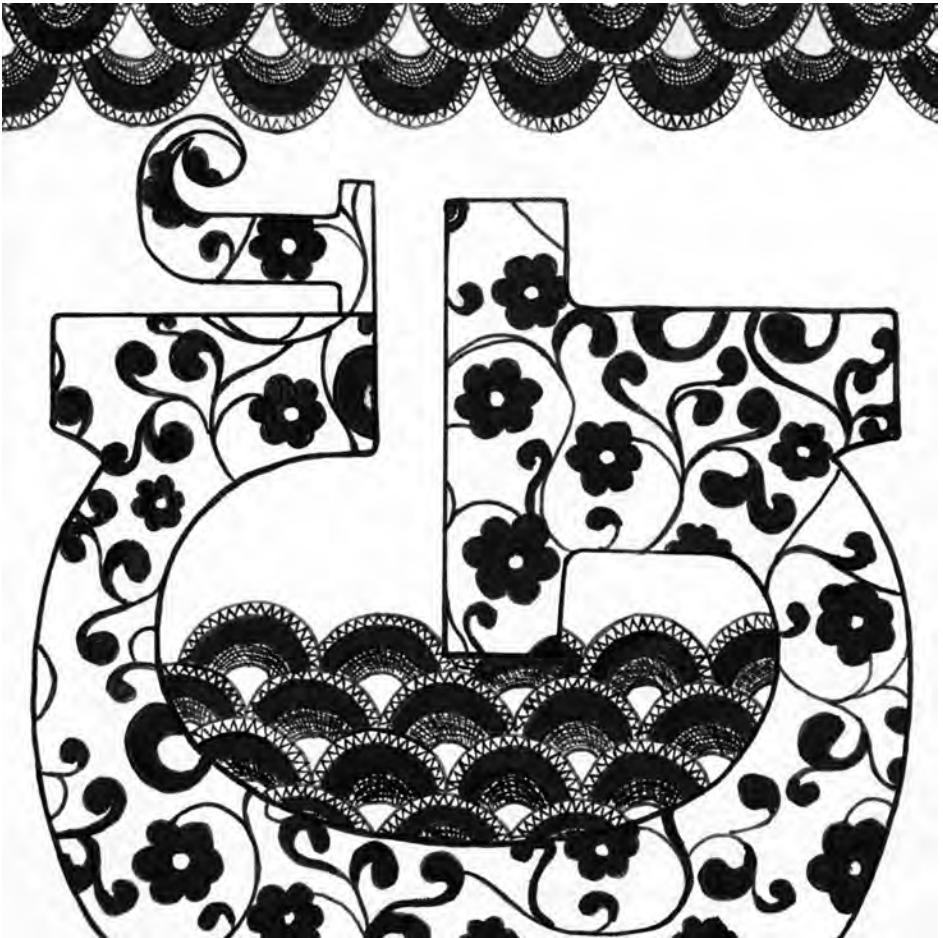
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Typographic Experiments

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Art 7400 | Experimental Typography
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Wrongful Conviction

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Criminal Justice 7000 | Corrections and Sentencing
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What Is Wrongful Conviction?

Wrongful conviction has plagued the United States criminal justice system since this country's inception in 1776 and it continues to be a major issue that tarnishes the name of justice to this day. Most will postulate that the majority of the individuals locked behind bars in prisons, jails, and detention centers across the country are guilty and deserve their punishment. Studies of wrongful conviction by social scientists, scholars, and lawyers have begun to dismantle these nescient beliefs and to influence changes.

Wrongful conviction is defined as “the result of a criminal trial which ends in judgments or sentence that the prisoner is guilty as charged,” despite the fact that he or she has not committed the crime (Roman, Walsh, Lachman & Yahner, 2012). Although this has occurred for hundreds of years in American society, it was not until recently that there was a form of technology that could prove a person's innocence and create grounds for exoneration. This technological advance came to fruition through the use of DNA analysis. After collecting seminal fluid or any bodily secretions found at the crime scene, scientists can extract the DNA from these samples and create a DNA profile. A DNA profile is defined as “the final product of DNA testing ... a series of numbers that describe a person's DNA at specific locations (loci) on the genome. A full profile is produced when testing yields numbers from every targeted location ... In general, the more loci represented in a profile, the stronger the association or ‘match’ that can be made” (Roman, Walsh, Lachman & Yahner, 2012).

After scientists and justice officials paired up to use this technology as a type of investigative tool in the late 1980s, the door was opened for approximately 347 previously convicted individuals to use DNA evidence to validate their innocence.

Since 1989 there has been a significant shift in the field of wrongful conviction commonly called an “innocence movement” (Leo, Gould, 2009). Now it is not uncommon to see documentaries about wrongful conviction or to read an article online or in a newspaper about a previously convicted felon being exonerated after spending years in prison. This advance in the criminal justice system was and continues to be greatly needed, but what is often forgotten is how the United States criminal justice system came to a point where there is even a need for the term wrongful conviction.

Over the years there have been many such as Erle Stanley Garner (*The Court of Last Resort*) and Edward Borchard (*Convicting the Innocent*), whose books were instrumental to the wrongful conviction movement because they “shifted the debate away from whether actually innocent individuals were wrongfully convicted in the American criminal justice system to the question of why they were wrongfully convicted and what could be done to correct the problem” (Leo, Gould 2009). As with most great theories that are before their times, these books were not accepted by the public. Despite the vast amount of court cases that were examined and the irrefutable proof that there were wrongfully convicted individuals behind bars, American society was not accepting of the idea that their great country could and would send innocent people to prison.

Historical Background

Due to public disbelief and overall indifference, the government had the ability to structurally and deliberately sentence individuals to prison, undeterred by the fact they might be innocent. This systematic imprisonment of individuals was brought about to offset the need for labor in the Southern states after the eradication of slavery in 1865. With the 13th Amendment to the Constitution, the United States government used and continues to use prison labor as a type of cheap labor. The 13th Amendment states “neither slavery nor involuntary servitude, except as a punishment for crime whereof the party shall have been duly convicted, shall exist within the United States, or any place subject to their

jurisdiction.” This amendment made slavery of all types except one unconstitutional and therefore illegal. This small yet salient addition to this amendment made all the difference in the operations of the criminal justice system from the patrolman to the Supreme Court judge. With the major labor deficit on Southern plantations, planters needed to find another source of cheap labor, thus came the origination of the criminalization of the Black man. Methodically, African American men were portrayed as animalistic, immoral and untrustworthy rapists who craved the white woman. This assassination of character, plus racism from the times of slavery, combined and created an unprecedented use of the U.S. criminal justice system. Black men and woman were arrested for trivial offences, such as loitering, soliciting and vagrancy. These individuals were convicted of their trivial offenses and subsequently sentenced to work on the same tobacco, cotton and sugar cane plantations they and their forefathers had been freed from.

As years progressed, the practice of imprisoning African Americans for minor offenses continued. In *The New Jim Crow: Mass Incarceration in the Age of Colorblindness*, Michelle Alexander says that “the ‘social pathologies’ of the poor, particularly street crime, illegal drug use and delinquency, were redefined by conservatives as having their cause in overly generous relief arrangements” (Alexander, 1996). This conservative belief combined with Richard Nixon’s presidential campaign of law and order set the platform for Ronald Reagan’s War on Drugs. Under this ideology, Reagan and the rest of America found it necessary to arrest individuals and sentence them to lengthy stretches of imprisonment. With marijuana and crack cocaine the primary targets of mandatory sentencing, which was initiated by legislation influenced by the War on Drugs, many African Americans were then snared by the unforgiving claws of the criminal justice system. These shifts in beliefs caused the average rate of incarcerated individuals to jump from 357,392 in 1970 to 513,900 in the 1980s (DuVernay, Averick & Barish 2016).

Liberals began to rethink their stance on crime and punishment, and there was a resurgence of the media once again demonizing blacks. The term “super predator” became a phrase consistently thrown about causally in both the Republican and Democratic parties. Super predators were considered to be youths, primarily Black and Latino, having “... no respect of human life, and

no sense of the future” (DiLulio, 1995). Pretty soon the term “super predator” became a household phrase and the public urged for policy to condemn these depraved youths to imprisonment. Bill Clinton’s Federal Crime Bill of 1994 paved the way for this to happen. With massive funding to build prisons and to militarize police, the rate of individuals incarcerated grew to 2,015,300 in 2000. In addition to the media once again vilifying African Americans, there was a resurrection in the need for cheap labor. Following suit with America’s capitalist economy, there was an increase of privatized correctional institutions. These private prisons’ primary goal was to gain profit, and they have made exceptional revenue from government contracts and outsourced labor. For example, Corrections Corporations of America “generated over \$2.53 billion in revenue in 2012” (Kincade). This systematic imprisonment of individuals is a major issue in the American justice system, especially considering the disparities in the individuals being arrested. In 2014, 2,724 out of 100,000 Black males were imprisoned, Latino males’ rate of imprisonment was 1,091 per 100,000 and white males’ rate of imprisonment was 465 per 100,000 (Sentencing Project, 2015). Using these prisoners as cheap labor and having contracts with major businesses like Microsoft, JC Penny and Victoria’s Secret, private prisons have the motivation to keep their prisons as full as possible, whether an individual is innocent or not.

Literature Review

Like their forefathers, Michael Radlet and Hugo Bedau are drawing attention to the issue of wrongful conviction in the United States criminal justice system. Unlike their predecessors, these scholars have the attention of today’s society. Radlet and Bedau used the aggregated case study method, to “identify, quantify and describe sources of error and the sources of discovery of error in potentially capital wrongful conviction cases” (Leo, Gould, 2009). Through their studies in 1987, they documented 350 cases of wrongful conviction from the years 1900 to 1985, 23 of which led to executions. This led to Radlet and Bedau setting the standard for arguing wrongful conviction, also known as “innocentrism,” and opened up a dialogue about this issue (Leo, Gould, 2009). Since then, there have been numerous studies and programs dedicated to helping the wrongfully convicted. One study found took statistics and counted at least one half of all

capital exoneration rates between the years 1982 and 1989 and divided them by the total of capital cases, 2235. After doing this they found the innocence rate to be .47%, or 5 in 1000. To specify their findings, they calculated the number of cases where DNA evidence in rape or murder cases can actually be used. This accounted for 21.45% of their cases. By focusing on this percentage, the total number of focused cases lessened from 2,235 to 479. From these statistics it can be inferred that at the very least 7,500 people are wrongfully convicted each year. The rate of wrongful conviction is possibly as high as 5% for rape and murder cases (Risinger, 2007).

Unsatisfactory forensic science, inadequate defense representation, failure to disclose questionable evidence, ineffective post-conviction procedures as well as the three most important factors, problematic interrogation methods, tunnel vision, and faulty eyewitness identification procedure, can lead to wrongful conviction. Tunnel vision and problematic interrogation tend to go hand in hand. An investigative team that is pressured to solve a crime as quickly as possible may feel the need to stretch the legal limitations that are put in place to protect individuals from unfair prosecution. “The criminal justice system is not able to sufficiently secure convictions using scientific evidence in cases which may have otherwise resulted in miscarriages of justice” (Jones, 2012). The drive to solve a tough case may result in an investigator’s abuse of power, which may cause an officer to beat a false confession out of an individual or to subject them to harsh interrogation techniques like sleep deprivation or starvation. Studies have shown that “2/3 of post-conviction DNA exoneration homicide cases involved false confessions” (DuVernay, Averick & Barish, 2016). Due to the need to seem proactive and tough on crime to the public, tunnel vision may also affect prosecutors. They may force a suspect to plead guilty for less prison time and discourage them from pursuing a court case.

Faulty eyewitness identification procedure accounts for the largest amount of wrongful convictions. Johnson, Griffith, and Barnaby mentioned that there is a common pattern of error “when a white woman is raped by an African American or Hispanic man and unintentionally identifies an innocent person as the perpetrator” (Johnson, 2013). They further argue that these mistakes can be from visual impairment, stress and most importantly cross-racial identification. The issue of cross-racial identification is paramount in eyewitness identifica-

tion. As mentioned previously, the black man was demonized for centuries by the media. Everybody of any race in the United States is encultured with the belief that the black male is a beast to be feared. Therefore, it is only natural for a white woman to accuse a black male of being her attacker.

The causes of wrongful conviction are repugnant but the repercussions are even more heinous. In its simplest form, wrongful conviction can lead to people's distrust in the overall system. The American society has been groomed to instill all their trust and faith in the law and those who operate it. Learning that the system we follow is not fair and just for all people may leave people to question other things in our society.

One of the worst consequences of wrongful conviction is the effect that it has on the innocent person's psyche. Innocent individuals are still subject to the harshness of prison. Just because a person is not guilty does not mean that they will not adapt to their incarceration. The way a prisoner adapts to the negative environment of prison is called institutionalization. Institutionalization affects each person in one or more of the following ways: hyper-vigilance, interpersonal distrust, suspiciousness, emotional over-control, alienation, psychological distancing, social withdrawal, incorporation of exploitive norms of prison culture, diminished self-worth and post-traumatic stress disorder (APSE, 2016). It is common knowledge that going to prison exposes an individual to hardened criminals with no remorse. Even innocent individuals who are exonerated exit prison with a set of habits that makes it hard for them to function in the outside world.

Wrongful conviction has its basis in quite a few things, the way the case is handled as well as racism and how the legal system has been used against minorities. Being wrongfully imprisoned for a crime an individual didn't commit is a grievous situation in general, but being sent to death row for a crime you didn't commit is most certainly more agonizing. The individual that is imprisoned is not afforded the luxury of fighting for exoneration once they are granted their freedom, because those convicted of a capital crime will never have the opportunity to taste freedom or even see the light of day again. These feelings of despair are a common occurrence in the testimonials of those who have been exonerated by the Innocence Project.

Case Studies

Verneal Jimerson and Dennis Williams were faced with a grim situation. Jimerson, Williams and two other men were involved in a very publicized case called the Ford Heights Four. The men were accused of kidnapping and then murdering a young couple in an abandoned house in Chicago. Before the couple was brutally murdered, the woman had been raped. Paula Gray, who was coerced by the police to be the chief witness, placed the men at the scene of the crime. She later retracted her statement and then once again accused the men of the heinous act. After the men were tried, Williams and Jimerson were found guilty and sentenced to death. Although there was an eyewitness account, there were a few inconsistencies that should have kept these two men from ever entering prison. The timeline the eyewitness spoke of was inconsistent. The state's expert was incorrect with his assessment; he told the judge and jury that "hair found in Williams' car had been microscopically matched" (Innocence Project). The jury believed the "expert" because they were not informed that microscopic hair analysis cannot confirm a match. What sealed Jimerson's fate was an erroneous analysis of blood at the crime scene. After both men had spent years in prison, a professor and a group of his students from Northwestern University studied the men's cases and noticed some inconsistencies. Through investigation, the students discovered that a witness had previously told police the identities of the actual murderers and then the students and their professor located them. In addition, after a DNA analysis, the results showed that the men could not have committed the crime. By 1996 both men had been exonerated. Williams had spent 18 years in prison and Jimerson had spent 11.

On March 10, 1985, a man known as "Bumpy" grabbed a young woman as she walked with a friend and asked her for money. Later that day, the victim was found dead after she had been stabbed, beaten and raped. Due to the woman's friend identifying "Bumpy," whose real name is Ronald Jones, his documented involvement in another rape, and a positive DNA match, Ronald "Bumpy" Jones was sentenced to death. It was later found that the DNA analysis the prosecution presented in court could not confirm a match because the semen and vaginal fluid had been mixed. Therefore, if the specimen had been compared to any male on earth's DNA, the finding would have been positive. The jury was not informed of this information. After the Supreme Court denied Jones' petition

in 1993, he filed for a PCR DNA testing, which the state eventually agreed to. After the results of this DNA analysis were negative, the state attorney's office decided to drop the charges. On May 5, 1999, Jones was exonerated.

Earle Washington, with the IQ of 69, had the mental capacity of a 10-year-old. When he was 22 years old, Washington was arrested after supposedly committing a burglary and malicious wounding. After he was questioned for two days straight, he admitted to the rape and murder of Rebecca Lynn Williams one year previously. Rebecca was a mother of three children who had been brutally stabbed over 30 times in front of two of her children. In addition to this horrendous crime, Washington also confessed to four other lesser crimes, which were later dismissed due to inconsistencies in testimony. Despite vast inconsistencies in Washington's knowledge of Rebecca's murder, the charges stuck. Washington didn't know Rebecca's race, address, where she was killed, her height or how many times she had been stabbed. The police in charge of the investigation continued to coerce Washington by repeatedly bringing him to the scene of the crime and showing him the apartment in which she lived.

Due to his disability Washington looked to the police for approval and willingly admitted to committing the murder in hopes to please them. After formal charges had been brought against him, the state psychologist cleared him for trial, although he had a mental deficiency. When Washington stood trial, a serology test that compared Washington's blood to blood at the location of the crime showed that the actual murderer had a rare type of plasma that was not found in Washington's blood, yet his lawyer did not offer a counter-argument. In January 1984, Washington was found guilty and sentenced to death. Shortly after, and unnecessarily, in May of the same year, Washington pled guilty for the burglary and malicious wounding. This earned him two 15-year consecutive sentences. Two months before Washington's scheduled execution, two lawyers heard of his case and managed to "secure a stay of execution" a few days before he was to be put to death. In 1993 a DNA test finally confirmed that Washington could not have committed the rape and murder, but the lawyers were not able to introduce this evidence because they were only allowed to enter new evidence within a 21-day time period. With a new charge of life-imprisonment, Washington spent six more years of his life in prison until the newly elected governor gave him a limited pardon. Washington was then released

on parole in 2001. Six years later another new governor gave Washington an absolute pardon. The state, after 23 years, 16 of which Washington had spent in prison, had finally admitted that Washington was not guilty of murder and rape. These three cases have the same things in common. Each of the accused was a black male. In addition, they were all sentenced to death, and the factors that led to them being wrongfully convicted were quite similar. After each of these individuals had been exonerated, it was discovered that there had been police coercion as well as eyewitness misidentification. Each of these men were unfairly targeted by the police and prosecutors. It was easier for authorities to end someone's life than to just admit their wrongdoing. Tunnel vision of this magnitude, in those placed in leadership, is harrowing and calls for discourse so that mistakes and decisions like these aren't as easy to make again.

The Need for Courses

Wrongful conviction is not focused on enough in everyday life or in scholarly settings. In researching which colleges and universities in New Jersey offer courses dedicated to wrongful conviction, it was found that only 3.37% do. This percentage was calculated first by compiling a list of all the colleges and universities in the New Jersey area. After compiling a list of 89 schools and searching their websites and catalogs it was found that only three of the schools (Fairleigh Dickenson University, Montclair State University, Rutgers) offered courses dedicated to wrongful conviction. By then dividing the number of schools that offer the course by the schools that do not, the number .0337 was derived. To then find the percentage, the number .0337 was multiplied by 100, which left the number 3.37%. In New Jersey there are 40,993 attorneys practicing law, and only 3.37% of schools offering wrongful conviction courses. From this data, it can be inferred that very few of them have taken wrongful conviction courses.

According to Leo and Gould, "law school teaches that wrongs have causes, and that causes can be prevented, and that injuries from unacceptable causes warrant recompense for the victim and punishment to the offender" (14). In this day and age, because of the injustices that plague our society, this way of thinking is outdated. Society needs law schools to shift their ideology from "everyone knows that a good story is more gripping than the best sociological

research or philosophical analysis” to one where the fellow man is tried in a just fashion (Leo, Gould, 2009). An ideology is needed where the injustices of the system are brought to the forefront of education. Just as individuals with medical degrees vow to practice ethically, under the Hippocratic Oath, so should individuals with juris degrees. Too often individuals in the law field are too focused on status. This is what makes it easy to wrongfully convict someone. With wrongful conviction courses taught at every college, young people focusing on pre-law can see how their poor decisions can negatively affect someone’s life. Wrongful conviction courses will force those in the law field to see those they represent or prosecute as people, instead of criminals because, “the opposite of criminalization is humanization” (DuVernay, Averick & Barish, 2016).

In Martin Luther King, Jr.’s “Letter from Birmingham Jail,” he said, “we know through painful experience that freedom is never voluntarily given by the oppressor; it must be demanded by the oppressed.” The oppressed are those who are behind bars because of systematic racism and wrongful conviction and those who can grant them freedom are the lawyers, judges, lobbyists, politicians and legislators. But if those who know and represent the law were never taught about wrongful conviction, how can we expect them to fight for the freedom of those wrongfully convicted?

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The Two Paradigms of Behavioral Health Care

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Within behavioral health care there are two paradigms: the paradigm of the professional staff and the paradigm of the peer specialist. While there are many differences between these two paradigms, the primary difference between them is how well they aid in the recovery of those who have been assigned a psychiatric label. The definition of recovery is vastly different between these two paradigms as well. Where one believes that recovery is the absence of all symptoms and the other one believes that recovery is the balance between living with symptoms and having a full life despite them that can include positive health, stable housing, a purpose and connection to their community (SAMHSA, 2015). Furthermore, certain hallmarks that are considered important may or may not be found in these paradigms and will be at odds with each other. For instance, professional staff are risk-averse when working with individuals who may experience an “altered state.” Peer specialists are willing to work with those individuals because they have an understanding of what it’s like to be there through their own lived experience. That is another key difference between professional staff and the peer specialist, the lived experience.

Describing the environment that one sees in traditional behavioral health services, one finds that the outpatient treatment facilities are quiet and sterile. The in-patient facilities are also quiet and sterile, but this promotes isolation and control of every aspect of the life of the person who is receiving services within the unit. An in-patient facility controls access to who can enter the unit and leave, when the meals are served, when you get up and go to bed, and what

the consequences are when you are emotional. Slam a door on a unit and you will get a shot of Haldol. Yell at your therapist and you will be incarcerated at the hospital.

Professional staff have clear boundaries that they will enforce through negative feedback. They do not have time nor do they want to develop a rapport with the service-users; there is a belief that they know what is best for those service-users despite their objections. Peer specialists have the same clear boundaries but they are contingent upon the context of the situation. They attempt to build rapport with everyone that they work with through their lived experience and that lived experience is the guidepost for how they treat service-users. They remember how the system of care treated them and want to make sure that the service-users can navigate it without the trauma that many of the peer specialists have experienced.

Within the same environment, the peer specialist is not constrained by the boundaries that the professional staff must have. Those staff protect themselves as if the assigned psychiatric label is a disease they can somehow “catch” from the person with whom they are working. Peer specialists believe you live life on life’s terms and that no one is beyond recovery or having a full life. Professional staff divide people by language, such as “high-functioning” or “low-functioning” and pit the service-users against each other through the use of the divisive language. Peer specialists see recovery as a complicated process with steps forward and back, where they gain experience in dealing with their symptoms to regain their life. It is a journey that everyone is on and they may not be in the same place as someone else. That clear difference is why peer specialists are successful when working with the service-users; they don’t give up hope. They do not dismiss someone simply because they are in a place that is different from where they would like to be. As for the professional staff, the assignment of the psychiatric label alone determines the chronicity of the person’s life and they are written off (Mauer, 2006). It is believed that the assignment of a psychiatric label removes a person’s ability to function as an adult with all the rights and responsibilities thereof. Professional staff are known to state that a person with a psychiatric label is unable to work or be productive, unable to raise a family, have lasting intimate relationships, complete an interrupted education, or handle the details of their lives, since they consider it too stressful and could lead to a relapse in

symptoms. On the contrary, these are the ideals that every peer specialist aids service-users in obtaining.

Peer specialists see everyone first as human being and then as a person with inalienable rights and dignity. This idea has been drummed out of the professional staff during their training. Professional staff see the crisis first and attempt to ameliorate it as quickly as possible. That is, they aim to reduce symptoms and attempt to get the person back to a place where they are no longer in crisis. What they seem to forget is that usually a crisis is contextual. Depression over the loss of a job or a close relative can initiate a crisis to someone who is already environmentally sensitive. A suicide attempt can be the result of psychological or physical trauma; it's a cry for help that shows that the issue needs to be resolved immediately. A peer specialist asks, "What happened to you?" while a professional staff member asks, "What is wrong with you?" (Mead, Kuno, & Knutson, 2012).

The common person and/or staff person rarely uses person first language. It is often "the schizophrenic." The label defines who they are, but for the peer specialist, it is only a part of who the service-user actually is. It is this connection between language and citizenship that is important because the labels have a negative impact on how a person sees themselves (Ware, Hopper, Tugenberg, Dickey, & Fisher, 2007; Goffman, 2007). The labels are part of the stripping of the "identity kit" that breaks down an individual. The peer specialist sits with the service-user in a supportive environment and reality tests the internalized negative self-image (Mosher, 1999).

Professional staff prefer to avoid risk, which is why people who seek services become frustrated and leave treatment. For the peer specialist, risk is a part of life. It is part of the human condition. A life worth living is a guidepost for the peer specialist, which means the dignity of being human and all that it encompasses, including the risks.

The ability to regain control of one's life and to try to get back precious years that are lost after the assignment of a psychiatric label are not always possible, but learning skills and setting new goals is a first step. Professional staff avoid mentioning or do not take into account a person's life before the label was assigned, failing to understand that they are a person before, during and after the assignment of that label. This is key when working with peer special-

ists, because they understand that recovery is on a continuum and their goal is to help them to attain and maintain their humanity, agency and citizenship. It is the recognition of the peer specialist that people learn more from failure than success and their number one job is to set people up for that success.

Professional staff have their own version of CARE, which is “Cover Ass Retain Employment.” Through the use of coercion, professional staff attempt to maintain control of the service-user by limiting their choices. It’s the use of micro-aggressions relating to their label and its cumulative effects that wear down the individual so they must rely on the professional staff for everything (Torres-Harding, et al., 2012; Sue, et al., 2007). It is comments like, “It’s too stressful to be a parent in your condition,” or “I don’t think that you are ready to go back to school yet.” This is how they maintain control. On the other hand, the peer specialist would help the service-user to find the best course of action to make those goals possible. It would be, “Let’s make a plan,” and then help the service-user stick to it. The peer specialist can see beyond the label and place the control back in the hands of the service-user.

As said previously, professional staff are risk-averse. They see it as something that could harm them, meaning they could lose their job. Peer specialists on the other hand aren’t worried about losing their jobs. They understand that life is messy and that is the perspective from which they work. They understand the role of stress and how it played out in their lives. That is what makes them “disruptive innovators” and the “chance encounters” that help service-users make it back from the edge (Cross, 1991; Deegan, 2013). They help rebuild the “stripped identity kit” that is the result of Goffman’s “Mortification of Self” (2007). Peer specialists help promote hope, dignity, a sense of self, voice, and agency that aid in recovery.

Due to the nature of the relationship between the peer specialist and service-user, there is no worry that coercion will be used a tool for compliance. Coercion has been found to not be effective in the treatment of a label. The United Nations has stated that the use of coercion is akin to torture and is the antithesis to positive health outcomes (Mendez, 2013). Peer specialists understand the great harm that is caused when coercion is in forefront of the care being provided. Peer specialists listen, validate, and work through difficult situations. This is while professional staff still invalidate and try to keep things as sterile and calm

as possible.

In conclusion, I believe that the peer specialist model of recovery is essential to helping a person take their life back after the assignment of a psychiatric label. We see clearly from these two paradigms why one works and one doesn't. Even though working as a peer specialist is tough enough when you are in an environment that is supportive, validating, and individuals value and depend on your "lived experience," professional staff's system of care hasn't changed nor its professional values since the mid-seventeenth century in the asylum known as Bedlam. They are set up with very different values and beliefs. It is said of the peer specialist that they work and go "where angels fear to tread."

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Linear Recurrence Relations

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Preface

Readers of this paper should be at least familiar with sequences and recursive sequences. Many students and former students are introduced to the basics of sequences in high school or first-year math college classes. For one or two pages, readers should also have a basic familiarity with matrices and introductory linear algebra. Students at Kingsborough who have taken a few math courses should be able to follow along.

Now for a summary: I introduce the word *sequences* (I define it in words and mathematics) and its relevance to how we can use sequences to model real-life scenarios. (You can use sequences to play the game Towers of Hanoi perfectly every time. Check it out!) First, a sequence is a list of numbers that are related to one another by a formula (for each list of numbers the formula can differ). But I also define *recursive sequences*, which are a list of numbers that are generated by one or more of the previous numbers:

Example: 1, 2, 3, 4, 5, 6 ... (Assume the list begins at one.)

The second number (2) can be defined as $1 + 1$. The third number (3) can be defined as $2 + 1$. The fourth number (4) can be defined as $3 + 1$ and so on and so forth.

Example: 2, 4, 6, 8, 10, 12, ...

Notice that each number is a multiple of 2 and can be expressed as such.

Example: 2, 4, 16, 32, 64, 256

To generate 4, you'll need to square 2 ($2*2$). To generate 16, you'll need to square 4 ($4*4$) etc.

My goal in my paper is to find an actual math formula that can express each number. I achieve this goal by stating theorems (math facts that are proven to be true) and using the theorems to find an actual math formula for each list of numbers (specifically recursive sequences).

In my introduction to the paper, I define sequences and recursive sequences in words that will hopefully make more sense.

Linear Recurrence Relations

Suppose $\{a_n\}$ is a sequence of real numbers, where $n = 0, 1, 2; \dots$ A recurrence relation for $\{a_n\}$ is an equation that can be expressed in terms of one or more of the previous terms a_0, a_1, \dots, a_{n-1} where $n > 0$. For example, suppose I have a sequence of numbers

$$3, 5, 7, 9, 11, 13, \dots$$

If we set $a_0 = 3$; then the second term $a_1 = 5$ can be expressed as $3 + 2 = a_0 + 2$. The third term $a_2 = 7$ can be expressed as $5 + 2 = a_1 + 2$. The fourth term $a_3 = 9$ can be expressed as $7 + 2 = a_2 + 2$; and so on. Each term in the sequence can be expressed using one of the previous terms in this example. We can define this recurrence relation as $a_n = a_{n-1} + 2$ where $n > 0$ is a natural number and $a_0 = 3$: Since $a_3 = 9$, we have $a_4 = 9 + 2 = 11$; $a_5 = 11 + 2 = 13$; and so on. We call $a_0 = 3$ the initial condition of the recurrence relation. The recurrence relation is linear because each term a_n and a_{n-1} in the relation are degree one.

Linear recurrence relations can also be used to model populations. Suppose we have a pair of rabbits on an island. A pair of rabbits does not breed until they are 2 months old or older. After they are 2 months old, they breed another pair each month and the process continues. Let us find a Linear Recurrence Relation to tell us how many pairs of rabbits are on the island after N months (assume the

rabbits do not die).

Let's call F_n the total number of pairs of rabbits on the island after n months, where $n = 1, 2, 3, \dots$. In the first month, we have a pair of rabbits, which means $F_1 = 1$. In the second month the pair of rabbits cannot reproduce yet, hence $F_2 = 1$: In the n^{th} month, however, they can reproduce, so the total number of pairs of rabbits are $F_{n-1} + F_{n-2}$, where F_{n-1} is the number of pairs of rabbits a month ago and F_{n-2} is the number of newborn pairs because they come from a pair of rabbits at least two months ago. So we can define $F_n = F_{n-1} + F_{n-2}$ with initial conditions $F_1 = 1$ and $F_2 = 1$ for $n = 1; 2; 3; \dots$. The sequence $\{F_n\}$ obtained in this way is the Fibonacci Sequence. Observe that

$$\begin{aligned} F_3 &= F_2 + F_1 = 1 + 1 = 2, \\ F_4 &= F_3 + F_2 = 1 + 2 = 3, \\ F_5 &= F_4 + F_3 = 3 + 2 = 5, \\ F_6 &= F_5 + F_4 = 5 + 3 = 8, \end{aligned}$$

and so on. The first 8 terms of the sequence are 1, 1, 2, 3, 5, 8, 13, and 21.

Another example of a linear recurrence relation arises in the famous disk tower puzzle known as the Tower of Hanoi. It consists of three pegs (labeled Start, Mid, Final) mounted on a board together with n disks of different sizes ($n = 1, 2, 3, \dots$). The game begins with all disks placed on Start in order of size, with the bottom disk being the largest. Our goal is to move every disk from Start to Final without placing any larger disk on top of a smaller one. The disks can only be moved one at a time. Let's imagine you have only 1 disk on Start. To move your disk to Final, you just take it and put it on Final immediately with only 1 move. If you have 2 disks, you take the second one and put it on Mid and then take the first disk and put it on Final and finally, put the second disk on top of the first disk in Final giving you 3 moves. Suppose I have 3 disks, what would I do then? Well, you'd move the third disk to Final and the second disk to Mid. After that you'd take the third disk from Final and put it on top of the second disk on Mid and then you'd take the first disk from Start and put it on Final. You'd then take the third disk in Mid and put it on Start and the second disk in Mid and put it atop the first disk in Final and finally, take the third disk from Start and put it atop the rest of the disks in Final. In this case, you have a minimum of 7 moves to do this. Are you starting to notice the pattern? What

about for n disks, what is the minimum number of moves needed to win the game? We can make use of the $n - 1$ disk solution and use it to recursively place the disks on the right pegs. The rules are, apply the $n - 1$ disk solution to transfer them all to the Mid peg. Afterwards, you'd take the very first disk and place it on the Final peg and then you'd apply the $n - 1$ disk solution again to transfer the $n - 1$ disks to the Final peg. Since the solution for n disks relies on the solution for $n - 1$ disks, we can define the Towers of Hanoi game in terms of a recursive equation $T_n = 2T_{n-1} + 1$ with initial condition $T_0 = 0$, which means if you had 0 disks, it'd require 0 moves.

Suppose, however, we don't want to rely on the previous terms or solution to find out the succeeding terms or even the relationship between the numbers. How can we find an explicit formula to define a recurrence relation? An explicit formula is also called the closed form. For some recurrence relations, finding the closed form is impossible because the relationship between the terms are unpredictable. However, for a small set of problems we can find an explicit formula by the use of helpful theorems. We will take a look at a subset of recurrence relations called homogeneous and non-homogeneous linear recurrence relations.

Definition: A homogeneous linear (or linear homogeneous) recurrence relation a_n of degree k is defined as

$$(*) a_n = C_1 a_{n-1} + C_2 a_{n-2} + C_3 a_{n-3} + \dots + C_k a_{n-k}, \text{ where} \\ C_1, C_2, C_3, \dots, C_k \text{ are (real) constants.}$$

From this point on, $(*)$ will refer to the relation above. Notice that there are no non-linear terms and no functions of n in a homogeneous linear recurrence relation. The initial conditions of $(*)$ are given values for a_0, a_1, \dots, a_{k-1} . A recurrence relation such as $a_n = C_1 a_{n-1} + n^2$ is called nonhomogeneous, and a recurrence relation such as $a_n = C_1 (a_{n-1})^2$ is called nonlinear. We will only discuss linear recurrence relations.

The first theorem deals with the closed form of a simple kind of linear re-currence relation, namely the homogenous linear recurrence relation of degree one.

Theorem 1: Let $a_n = Aa_{n-1} + B$, where A and B are constants and $n \geq 0$. If $A = 1$, then a solution of a_n is $a_n = a_0 + nB$. If $A \neq 1$, then a solution of a_n is

$$a_n = A^n a_0 + \frac{(A^n - 1)B}{A - 1}.$$

Proof: We check that these are, in fact, solutions. Firstly, notice that when $A = 1$, $a_n = Aa_{n-1} + B$ can be simplified into $a_n = a_{n-1} + B$. Let us plug the proposed solution into the recursive formula. If $a_n = a_0 + nB$, then $a_{n-1} = a_0 + (n - 1)B$. This gives

$$\begin{aligned} a_{n-1} + B &= a_0 + (n - 1)B + B \\ &= a_0 + nB - B + B \\ &= a_0 + nB = a_n \end{aligned}$$

as claimed. For the case $A \neq 1$, we check that $A^n a_0 + \frac{(A^n - 1)B}{A - 1}$ is a solution to $a_n = Aa_{n-1} + B$: In this case, $a_{n-1} = A^{n-1} a_0 + \frac{(A^{n-1} - 1)B}{A - 1}$.

Thus,

$$\begin{aligned} Aa_{n-1} + B &= A \left(A^{n-1} a_0 + \frac{(A^{n-1} - 1)B}{A - 1} \right) + B \\ &= A^n a_0 + \frac{(A^n - A)B}{A - 1} + B \\ &= A^n a_0 + \frac{(A^n - A)B}{A - 1} + \frac{(A - 1)B}{A - 1} \\ &= A^n a_0 + \frac{(A^n - 1)B}{A - 1} = a_n. \end{aligned}$$

Example 1: For Towers of Hanoi, the recurrence relation that describes the game is $T_n = 2T_{n-1} + 1$ with $T_1 = 1$. Set $T_0 = 0$. Since T_n is a homogeneous linear recurrence relation of degree one, we can apply Theorem 1 to obtain a closed form for T_n . Since $A = 2$ and $B = 1$; the solution is

$$T_n = A^n T_0 + \frac{(A^n - 1)B}{A - 1} = 2^n (0) + \frac{(2^n - 1)1}{2 - 1} = 2^n - 1.$$

Example 2: Consider the linear homogeneous recurrence relation $a_n = 2a_{n-1}$ where $n \geq 1$ and $a_0 = 3$: Since it is degree one, we can apply Theorem 1 with $A = 2$ and $B = 0$.

$$a_n = A^n a_0 + \frac{(A^n - 1)B}{A - 1} = 2^n (3) + \frac{(2^n - 1)0}{2 - 1} = 3(2^n).$$

Example 3: Suppose $a_n = a_{n-1}$, where $n \geq 1$ and $a_0 = 2$. By Theorem 1, with $A = 1$ and $B = 0$; we get $a_n = a_0 + nB = 2 + n(0) = 2$.

The next theorem illustrates how to construct more solutions of a recurrence relation from a collection of known solutions.

Theorem 2: Let $\{u_n\}$ and $\{v_n\}$ be sequences which satisfy the recurrence relation $(*)$: If S and T are constants, then $a_n = Su_n + Tv_n$ is a solution of $(*)$.

Proof: Since $\{u_n\}$ and $\{v_n\}$ satisfy $(*)$, we have

$$u_n = C_1u_{n-1} + C_2u_{n-2} + C_3u_{n-3} + \dots + C_ku_{n-k}$$

and

$$v_n = C_1v_{n-1} + C_2v_{n-2} + C_3v_{n-3} + \dots + C_kv_{n-k}$$

We plug u_n and v_n into $Su_n + Tv_n$ and get

$$\begin{aligned} & S(C_1u_{n-1} + C_2u_{n-2} + C_3u_{n-3} + \dots + C_ku_{n-k}) + \\ & T(C_1v_{n-1} + C_2v_{n-2} + C_3v_{n-3} + \dots + C_kv_{n-k}) = \\ & SC_1u_{n-1} + SC_2u_{n-2} + SC_3u_{n-3} + \dots + SC_ku_{n-k} + \\ & TC_1v_{n-1} + TC_2v_{n-2} + TC_3v_{n-3} + \dots + TC_kv_{n-k} = \\ & C_1(Su_{n-1} + Tv_{n-1}) + C_2(Su_{n-2} + Tv_{n-2}) + C_3(Su_{n-3} + Tv_{n-3}) \\ & + \dots + C_k(Su_{n-k} + Tv_{n-k}) = \\ & C_1a_{n-1} + C_2a_{n-2} + C_3a_{n-3} + \dots + C_ka_{n-k} = a_n. \end{aligned}$$

Recall the Fibonacci Sequence earlier, defined as $F_n = F_{n-1} + F_{n-2}$ with $F_1 = 1$ and $F_2 = 1$. We modify the sequence slightly and allow $n = 0$ by setting $F_0 = 0$. Let's use Theorem 2 to find a solution of F_n . We begin by finding a geometric sequence which also satisfies the relation $F_n = F_{n-1} + F_{n-2}$. Substitute every term in F_n by $g_n = g_0r^n$; where r is a common ratio of the numbers in the sequence $\{g_n\}$. We obtain $g_0r^n = Sg_0r^{n-1} + Tg_0r^{n-2}$: Next we divide each side by g_0r^{n-2} , and the equation becomes $r^2 = r + 1$. This equation is called the characteristic equation of the relation. Solving for the roots of this equation gives us $r_1 = \frac{1 + \sqrt{5}}{2}$ and $r_2 = \frac{1 - \sqrt{5}}{2}$. This means that the sequences $\{u_n\}$ and $\{v_n\}$ defined

by $u_n = u_0 \left(\frac{1 + \sqrt{5}}{2}\right)^n$ and $v_n = v_0 \left(\frac{1 - \sqrt{5}}{2}\right)^n$ are solutions of F_n . By Theorem 2,

$$a_n = S \left(\frac{1 + \sqrt{5}}{2}\right)^n + T \left(\frac{1 - \sqrt{5}}{2}\right)^n$$

is a solution of F_n . We use the initial conditions to solve for the constants S and T : When $n = 0$, $a_0 = 0 = S + T$. When $n = 1$,

$$a_1 = 1 = S \left(\frac{1 + \sqrt{5}}{2}\right) + T \left(\frac{1 - \sqrt{5}}{2}\right),$$

Solving the system of linear equations leads to $S = \frac{1}{\sqrt{5}}$ and $T = -\frac{1}{\sqrt{5}}$. And so, the solution for the Fibonacci Sequence is

$$F_n = \frac{1}{\sqrt{5}} \left(\frac{1 + \sqrt{5}}{2}\right)^n - \frac{1}{\sqrt{5}} \left(\frac{1 - \sqrt{5}}{2}\right)^n.$$

The method used in the above illustration indicates a method for solving certain recurrence relations. The characteristic equation of the homogeneous linear recurrence relation (*) is defined to be

$$r^k = C_1 r^{k-1} + C_2 r^{k-2} + C_3 r^{k-3} + \dots + C_k.$$

Theorem 3: Suppose the roots of the equation $r^2 = C_1 r + C_2$ are distinct real or complex numbers, say r_1 and r_2 . The sequence $\{a_n\}$ is a solution of $a_n = C_1 a_{n-1} + C_2 a_{n-2}$ if and only if $a_n = A r_1^n + B r_2^n$, where A and B are constants and $n \geq 0$.

Proof: We must show two things.

Claim 1: If the roots of the characteristic equation of the recurrence relation are r_1 and r_2 ($r_1 \neq r_2$) and A and B are constants, then the sequence $\{a_n\}$ with $a_n = A r_1^n + B r_2^n$ is a solution of $a_n = C_1 a_{n-1} + C_2 a_{n-2}$.

We plug $a_n = A r_1^n + B r_2^n$ into $a_n = C_1 a_{n-1} + C_2 a_{n-2}$ and use the assumption that $r_1^2 = C_1 r_1 + C_2$ and $r_2^2 = C_1 r_2 + C_2$:

$$\begin{aligned}
 C_1(Ar_1^{n-1} + Br_2^{n-1}) + C_2(Ar_1^{n-2} + Br_2^{n-2}) &= \\
 C_1Ar_1^{n-1} + C_1Br_2^{n-1} + C_2Ar_1^{n-2} + C_2Br_2^{n-2} &= \\
 Ar_1^{n-2}(C_1r_1 + C_2) + Br_2^{n-2}(C_1r_2 + C_2) &= \\
 Ar_1^{n-2}(r_1^2) + Br_2^{n-2}(r_2^2) &= \\
 Ar_1^n + Br_2^n &= a_n
 \end{aligned}$$

Claim 2: If $\{a_n\}$ is a solution of $a_n = C_1a_{n-1} + C_2a_{n-2}$, then it must take the form $a_n = Ar_1^n + Br_2^n$ for some constants A and B .

Let $\{a_n\}$ be any solution of $a_n = C_1a_{n-1} + C_2a_{n-2}$ with initial conditions $a_0 = M$ and $a_1 = K$. We claim that there exist constants A and B such that $a_n = Ar_1^n + Br_2^n$ satisfies the same initial conditions $a_0 = M$ and $a_1 = K$.

When $n = 0$, $a_0 = M = Ar_1^0 + Br_2^0 = A + B$. Therefore, $M = A + B$. When $n = 1$, $a_1 = K = Ar_1^1 + Br_2^1$; so that $K = Ar_1 + Br_2$. Solving for A and B gives us $A = M - B$ and $B = \frac{K - Mr_1}{r_2 - r_1}$, proving our claim. Since $\{a_n\}$ and $\{Ar_1^n + Br_2^n\}$ both satisfy the recurrence relation and satisfy the same initial conditions, $a_n = Ar_1^n + Br_2^n$ because for every solution to a_n there is a unique pair of initial conditions.

Example 4: I will now demonstrate the use of Theorem 3. Suppose we have a homogeneous linear recurrence relation $a_n = 4a_{n-1} + 21a_{n-2}$ with initial conditions $a_0 = C_0$ and $a_1 = C_1$. The characteristic equation of this relation is $r^2 = 4r + 21$, and its roots are $r_1 = 7$ and $r_2 = -3$. Since we have two distinct roots, we can find a solution of the relation using Theorem 3 and obtain $a_n = A(7^n) + B(-3)^n$. Now we have to solve for A and B using the initial conditions. When $n = 0$, $a_0 = C_0 = A + B$. When $n = 1$, $a_1 = C_1 = 7A - 3B$. After solving the system of linear equations, we arrive at $A = \frac{3C_0 + C_1}{10}$ and $B = \frac{7C_0 - C_1}{10}$. Plug back A and B into a_n and a solution of a_n is

$$a_n = \frac{3C_0 + C_1}{10} (7^n) + \frac{7C_0 - C_1}{10} (-3)^n.$$

Another method for arriving at the solution for a_n is by using matrices. Let's look at $a_n = 4a_{n-1} + 21a_{n-2}$ again. If we subtract 1 from n , then we have, $a_{n-1} = 4a_{n-2} + 21a_{n-3}$ with initial conditions $a_0 = C_0$ and $a_1 = C_1$. We create a matrix equation describing the two equalities as such:

$$\begin{bmatrix} a_n \\ a_{n-1} \end{bmatrix} = \begin{bmatrix} 4 & 21 \\ 1 & 0 \end{bmatrix} \begin{bmatrix} a_{n-1} \\ a_{n-2} \end{bmatrix}$$

Similarly,

$$\begin{bmatrix} a_{n-1} \\ a_{n-2} \end{bmatrix} = \begin{bmatrix} 4 & 21 \\ 1 & 0 \end{bmatrix} \begin{bmatrix} a_{n-2} \\ a_{n-3} \end{bmatrix}.$$

We now substitute $\begin{bmatrix} a_{n-1} \\ a_{n-2} \end{bmatrix}$ in our first matrix equation by the right hand side of the second matrix equation and get

$$\begin{bmatrix} a_n \\ a_{n-1} \end{bmatrix} = \begin{bmatrix} 4 & 21 \\ 1 & 0 \end{bmatrix} \begin{bmatrix} 4 & 21 \\ 1 & 0 \end{bmatrix} \begin{bmatrix} a_{n-2} \\ a_{n-3} \end{bmatrix} = \begin{bmatrix} 4 & 21 \\ 1 & 0 \end{bmatrix}^2 \begin{bmatrix} a_{n-2} \\ a_{n-3} \end{bmatrix}.$$

If you keep on substituting, you'll eventually end up with

$$\begin{bmatrix} a_n \\ a_{n-1} \end{bmatrix} = \begin{bmatrix} 4 & 21 \\ 1 & 0 \end{bmatrix}^{n-1} \begin{bmatrix} a_1 \\ a_0 \end{bmatrix} = \begin{bmatrix} 4 & 21 \\ 1 & 0 \end{bmatrix}^{n-2} \begin{bmatrix} 4 & 21 \\ 1 & 0 \end{bmatrix} \begin{bmatrix} C_1 \\ C_0 \end{bmatrix}.$$

Let $A = \begin{bmatrix} 4 & 21 \\ 1 & 0 \end{bmatrix}$. Our goal is to find a diagonal matrix D and a non-singular matrix P such that $D = P^{-1}AP$: The diagonal matrix will contain the eigenvalues of A and the matrix P will be the respective eigenvector matrix. Once we have done this, we obtain $A = PDP^{-1}$. If we raise A to the power $n - 2$, then

$$A^{n-2} = (PDP^{-1})^{n-2} = (PDP^{-1})(PDP^{-1}) \dots (PDP^{-1}) = PD^{n-2}P^{-1}.$$

Let's first find D : $\begin{vmatrix} 4-\lambda & 21 \\ 1 & -\lambda \end{vmatrix} = 0$ leads to $\lambda^2 - 4\lambda - 21 = 0$, which is the same as the characteristic equation for A that we found using Theorem 3. Solving for the roots, we find that $\lambda_1 = -3$ and $\lambda_2 = 7$. Now we need to find the corresponding eigenvectors. For $\lambda_1 = -3$, we find that $v_1 = \begin{bmatrix} -3 \\ 1 \end{bmatrix}$. For $\lambda_2 = 7$ we obtain $v_2 = \begin{bmatrix} 7 \\ 1 \end{bmatrix}$. And so, $D = \begin{bmatrix} -3 & 0 \\ 0 & 7 \end{bmatrix}$ and $P = \begin{bmatrix} -3 & 7 \\ 1 & 1 \end{bmatrix}$. After some calculations, we get $P^{-1} = \frac{1}{10} \begin{bmatrix} -1 & 7 \\ 1 & 3 \end{bmatrix}$ and $D^{n-2} = \begin{bmatrix} (-3)^{n-2} & 0 \\ 0 & 7^{n-2} \end{bmatrix}$. Returning to our original matrix equation, after replacing A^{n-2} by $PD^{n-2}P^{-1}$, we get

$$\begin{aligned} \begin{bmatrix} a_n \\ a_{n-1} \end{bmatrix} &= \begin{bmatrix} 4 & 21 \\ 1 & 0 \end{bmatrix}^{n-2} \begin{bmatrix} 4 & 21 \\ 1 & 0 \end{bmatrix} \begin{bmatrix} C_1 \\ C_0 \end{bmatrix} \\ &= \frac{1}{10} \begin{bmatrix} -3 & 7 \\ 1 & 1 \end{bmatrix} \begin{bmatrix} (-3)^{n-2} & 0 \\ 0 & 7^{n-2} \end{bmatrix} \begin{bmatrix} -1 & 7 \\ 1 & 3 \end{bmatrix} \begin{bmatrix} 4 & 21 \\ 1 & 0 \end{bmatrix} \begin{bmatrix} C_1 \\ C_0 \end{bmatrix} \\ &= \frac{1}{10} \begin{bmatrix} (3(-3)^{n-1} + 7^n)C_1 + (7(-3)^n + 3(7^n))C_0 \\ (3(-3)^{n-2} + 7^{n-1})C_1 + (7(-3)^{n-1} + 3(7^{n-1}))C_0 \end{bmatrix}. \end{aligned}$$

You may take the first or second expression. Let's take the first expression. After some algebraic manipulation, the first expression becomes

$$a_n = \frac{7^n (3C_0 + C_1) + (-3)^n (7C_0 - C_1)}{10},$$

which is the same answer as we found in Example 4.

Example 5: Theorem 3 can be applied when the roots of the characteristic equation are complex. Consider the homogeneous linear recurrence relation $a_n = 5a_{n-1} - 13a_{n-2}$, with initial conditions $a_0 = C_0$ and $a_1 = C_1$. The characteristic equation for this relation is $r^2 - 5r + 13 = 0$; and its roots are $r_1 = \frac{5 + 3\sqrt{3}i}{2}$ and $r_2 = \frac{5 - 3\sqrt{3}i}{2}$. When we apply Theorem 3, a solution of an is

$$a_n = A \left(\frac{5 + 3\sqrt{3}i}{2} \right)^n + B \left(\frac{5 - 3\sqrt{3}i}{2} \right)^n,$$

where A and B are constants. Using the initial conditions stated above, when $n = 0$, $a_0 = C_0 = A + B$; and when $n = 1$,

$$a_1 = C_1 = A \left(\frac{5 + 3\sqrt{3}i}{2} \right) + B \left(\frac{5 - 3\sqrt{3}i}{2} \right).$$

Solving the system of linear equations gives $A = \frac{3i\sqrt{3}C_0 - 5C_0 + 2C_1}{6i\sqrt{3}}$ and $B = \frac{3i\sqrt{3}C_0 + 5C_0 - 2C_1}{6i\sqrt{3}}$. Plug back A and B into an and obtain

$$a_n = \frac{3i\sqrt{3}C_0 - 5C_0 + 2C_1}{6i\sqrt{3}} \left(\frac{5 + 3\sqrt{3}i}{2} \right)^n + \frac{3i\sqrt{3}C_0 + 5C_0 - 2C_1}{6i\sqrt{3}} \left(\frac{5 - 3\sqrt{3}i}{2} \right)^n.$$

The next theorem describes the solution of $a_n = C_1a_{n-1} + C_2a_{n-2}$ in case the characteristic equation has a double root.

Theorem 4: Suppose the equation $r^2 = C_1r + C_2$ has a double root $r = r_1$, where C_1 and C_2 are constants and $C_2 \neq 0$. A sequence $\{a_n\}$ is a solution of the recurrence relation $a_n = C_1a_{n-1} + C_2a_{n-2}$ if and only if $a_n = Ar_1^n + Bnr_1^n$, where A and B are constants and $n \geq 0$.

Proof: We must first prove that if r_1 is the only root of $r_2 = C_1r + C_2$, then the sequence $\{a_n\}$ defined by $an = Ar_1^n + Bnr_1^n$ is a solution of $a_n = C_1a_{n-1} + C_2a_{n-2}$. From our characteristic equation, we can replace $C_1r_1 + C_2$ with r_1^2 . Furthermore, the sum of the roots is $2r_1 = C_1$ and their product is $r_1^2 = -C_2$. Replacing C_1 and C_2 with the aforementioned values and plugging $Ar_1^n + Bnr_1^n$ into $C_1a_{n-1} + C_2a_{n-2}$ gives

$$\begin{aligned} C_1 (Ar_1^{n-1} + B(n-1)r_1^{n-1}) + C_2 (Ar_1^{n-2} + B(n-2)r_1^{n-2}) &= \\ C_1Ar_1^{n-1} + C_1B(n-1)r_1^{n-1} + C_2Ar_1^{n-2} + C_2B(n-2)r_1^{n-2} &= \\ Ar_1^{n-2}(C_1r_1 + C_2) + Br_1^{n-2}(C_1r_1n - C_1r_1 + C_2n - 2C_2) &= \\ Ar_1^{n-2}(C_1r_1 + C_2) + Br_1^{n-2}(n(C_1r_1 + C_2) - C_1r_1 - 2C_2) &= \\ Ar_1^{n-2}(r_1^2) + Br_1^{n-2}(nr_1^2 - 2r_1^2 + 2r_1^2) &= \\ Ar_1^n + Bnr_1^n &= a_n. \end{aligned}$$

Next we need to prove that if $\{a_n\}$ is the solution of $a_n = C_1a_{n-1} + C_2a_{n-2}$ with initial conditions $a_0 = K$ and $a_1 = L$, where K and L are constants, then $an = Ar_1^n + Bnr_1^n$, where A and B are constants. This is achieved once we show that the same initial conditions for $\{a_n\}$ work for $Ar_1^n + Bnr_1^n$. When $n = 0$, we get $a_0 = K = Ar_1^0 + B(0)r_1^0 = A$. When $n = 1$, we get $a_1 = L = Ar_1^1 + B(1)r_1^1 = Ar_1 + Br_1$. Therefore, $L = Kr_1 + Br_1$, and thus, $B = \frac{L - Kr_1}{r_1}$. Since $\{a_n\}$ and $\{Ar_1^n + Bnr_1^n\}$ are solutions to a_n with the same initial conditions, $a_n =$ because for every solution of $an = Ar_1^n + Bnr_1^n$ because for every solution of $C_1a_{n-1} + C_2a_{n-2}$, there is a unique pair of initial conditions. This completes the proof.

Example 6: Let's apply Theorem 4. Suppose we have a homogeneous linear recurrence relation $a_n = 12a_{n-1} - 36a_{n-2}$ with initial conditions $a_0 = C_0$ and $a_1 = C_1$. The characteristic equation is $r_2 = 12r - 36$, and the root is $r_1 = 6$. Since there is only one root, we will use Theorem 4. Hence, $an = A(6^n) + Bn(6^n)$, where A and B are constants. Now we have to solve for the constants. Plugging in $n = 0$ gives us $a_0 = C_0 = A(6^0) + B(0)(6^0) = A$. When we plug in $n = 1$, we get $a_1 = C_1 = A(6^1) + B(1)(6^1) = 6A + 6B$. Thus, $B = \frac{C_1 - 6C_0}{6}$. The closed form of a_n is

$$a_n = C_0(6^n) + \frac{(C_1 - 6C_0)n(6^n)}{6} = C_0(6^n) + C_1n(6^{n-1}) - C_0n(6^n).$$

Theorem 3 can be generalized as follows:

Theorem 5: Suppose the roots of the characteristic equation

$$r^k = C_1 r^{k-1} + C_2 r^{k-2} + C_3 r^{k-3} + \cdots + C_k$$

of the recurrence relation (*) are $r_1, r_2, r_3, \dots, r_k$, where no two roots are equal. Then the sequence $\{a_n\}$ is a solution to a_n if and only if

$$a_n = A_1 r_1^n + A_2 r_2^n + A_3 r_3^n + \cdots + A_k r_k^n,$$

where $A_1, A_2, A_3, \dots, A_k$ are constants and $n \geq 0$:

Proof: To prove that the sequence fang de ned by

$$a_n = A_1 r_1^n + A_2 r_2^n + A_3 r_3^n + \cdots + A_k r_k^n$$

is a solution when the roots of the characteristic equation are $r_1, r_2, r_3, \dots, r_k$, we just plug in and work out the algebra just as in the proof of Theorem 3. In order to prove that the solution is unique when initial conditions are given, we need to use the so-called Vandermonde determinant. Since the roots of the characteristic equation are distinct, one can show that this determinant cannot be zero. This, in turn, implies that the solutions for the A_i always exist for any set of initial conditions.

Example 7: We solve the recurrence relation $a_n = 3a_{n-1} + 4a_{n-2} + 12a_{n-3}$ with initial conditions $a_0 = C_0$; $a_1 = C_1$, and $a_2 = C_2$ using Theorem 5. The characteristic equation for this recurrence relation is $r^3 = 3r^2 + 4r - 12$. The distinct roots are $r_1 = 3$, $r_2 = -2$, and $r_3 = 2$. Therefore,

$$a_n = A(3^n) + B(-2)^n + D(2^n),$$

where A , B , and D are constants. We need to solve for A , B , and D using the given initial conditions. When $n = 0$, $a_0 = C_0 = A + B + D$. When $n = 1$, $a_1 = C_1 = 3A - 2B + 2D$. When $n = 2$, $a_2 = C_2 = 9A + 4B + 4D$. The solution to this system of linear equations is $A = \frac{C_0 + C_2}{5}$, $B = \frac{11C_0 - 5C_1 + C_2}{20}$, and $D = \frac{C_0 + C_1 - C_2}{4}$. Therefore,

$$a_n = \frac{3^n (C_0 + C_2)}{5} + \frac{(-2)^n (11C_0 - 5C_1 + C_2)}{20} + \frac{2^n (C_0 + C_1 - C_2)}{4}.$$

A characteristic equation of degree k can have at most k roots, each distinct one

having a certain multiplicity. The next theorem handles this situation. We state it without proof.

Theorem 6: Suppose the equation $r^k = C_1r^{k-1} + C_2r^{k-2} + C_3r^{k-3} + \dots + C_k$ has s distinct roots r_1, r_2, \dots, r_s with multiplicities m_1, m_2, \dots, m_s respectively. Then a sequence $\{a_n\}$ is a solution of the recurrence relation (*) if and only if

$$a_n = (A_{1,0} + A_{1,1}n + \dots + A_{1,m_1-1}n^{m_1-1})r_1^n + (A_{2,0} + A_{2,1}n + \dots + A_{2,m_2-1}n^{m_2-1})r_2^n + \dots + (A_{s,0} + A_{s,1}n + \dots + A_{s,m_s-1}n^{m_s-1})r_s^n$$

for $n = 0, 1, 2, \dots$, where A_{ij} are constants for $1 \leq i \leq s$ and $0 \leq j \leq m_i - 1$.

Example 8: We demonstrate the use of Theorem 6. Consider the homogeneous linear recurrence relation $a_n = -3a_{n-1} + 24a_{n-2} + 80a_{n-3}$ with initial conditions $a_0 = C_0, a_1 = C_1$, and $a_2 = C_2$. Its characteristic equation $r^3 = -3r^2 + 24r + 80$ has roots $r_1 = 5$ of multiplicity 1 and $r_2 = -4$ of multiplicity 2. Therefore, there are constants A, B , and D such that $a_n = A(5^n) + (B + D^n)(-4)^n$: We need solve for A, B , and D . When $n = 0, a_0 = C_0 = A + B$. When $n = 1, a_1 = C_1 = 5A - 4B - 4D$. When $n = 2, a_2 = C_2 = 25A + 16B + 32D$. We solve for A, B and D and arrive at

$$A = \frac{64C_0 + 32C_1 + 4C_2}{324}, B = \frac{260C_0 - 32C_1 - 4C_2}{324}, \text{ and } D = \frac{C_2 - C_1 - 20C_0}{36}$$

Putting A, B , and D back into a_n gives

$$a_n = \frac{5^n (64C_0 + 32C_1 + 4C_2)}{324} + (-4)^n \left(\frac{260C_0 - 32C_1 - 4C_2}{324} + \frac{C_2 - C_1 - 20C_0}{36}n \right)$$

We turn our attention to nonhomogeneous linear recurrence relations.

Theorem 7: Suppose

$$(**) a_n = C_1a_{n-1} + C_2a_{n-2} + \dots + C_ka_{n-k} + F(n)$$

is a nonhomogeneous linear recurrence relation, where C_1, C_2, \dots, C_k are constants and $F(n)$ is some function of n : If $\{a_n^{(p)}\}$ is particular solution of a_n , then every solution of a_n takes the form $\{a_n^{(p)} + a_n^{(h)}\}$, where $a_n^{(h)}$ is a solution of $a_n = C_1a_{n-1} + C_2a_{n-2} + \dots + C_ka_{n-k}$.

The relation $a_n = C_1 a_{n-1} + C_2 a_{n-2} + \cdots + C_k a_{n-k}$ is called the associated homogeneous linear recurrence relation for $(**)$.

Proof: Since $\{ a_n^{(p)} \}$ is the particular solution of a_n , we have

$$a_n^{(p)} = C_1 a_{n-1}^{(p)} + C_2 a_{n-2}^{(p)} + \cdots + C_k a_{n-k}^{(p)} + F(n).$$

Let $\{ d_n \}$ be another solution of the relation, so that

$$d_n = C_1 d_{n-1} + C_2 d_{n-2} + \cdots + C_k d_{n-k} + F(n).$$

Then

$$\begin{aligned} d_n - a_n^{(p)} &= (C_1 d_{n-1} + C_2 d_{n-2} + \cdots + C_k d_{n-k} + F(n)) \\ &\quad - (C_1 a_{n-1}^{(p)} + C_2 a_{n-2}^{(p)} + \cdots + C_k a_{n-k}^{(p)} + F(n)) \\ &= C_1 d_{n-1} + C_2 d_{n-2} + \cdots + C_k d_{n-k} \\ &\quad - C_1 a_{n-1}^{(p)} - C_2 a_{n-2}^{(p)} - \cdots - C_k a_{n-k}^{(p)} \\ &= C_1 (d_{n-1} - a_{n-1}^{(p)}) + C_2 (d_{n-2} - a_{n-2}^{(p)}) + \\ &\quad \cdots + C_k (d_{n-k} - a_{n-k}^{(p)}). \end{aligned}$$

Thus, $\{ d_n - a_n^{(p)} \}$ is a solution to $a_n = C_1 a_{n-1} + C_2 a_{n-2} + \cdots + C_k a_{n-k}$; that is, $\{ d_n - a_n^{(p)} \}$ is a solution to the associated homogeneous linear recurrence relation. Setting $a_n^{(h)} = d_n - a_n^{(p)}$ and solving for d_n completes the proof.

Example 9: Consider $a_n = 2a_{n-1} + 2^n$, a nonhomogeneous linear recurrence relation. According to Theorem 7, a solution of this recurrence relation is of the form $a_n^{(p)} + a_n^{(h)}$, where $a_n^{(p)}$ is a particular solution and $a_n^{(h)}$ is a solution of the associated homogeneous linear recurrence relation. First let us find $a_n^{(h)}$.

The associated linear homogeneous recurrence relation for a_n is $a_n^{(h)} = 2a_{n-1}$. The characteristic equation of $a_n^{(h)}$ is $r = 2$. Hence, $a_n^{(h)} = A(2^n)$ where A is a constant.

Using trial and error, let's try to solve for $a_n^{(p)}$. Since $F(n) = 2^n$, we first try $a_n^{(p)} = B(2^n)$, where B is a constant. Substituting this into $a_n = 2a_{n-1} + 2^n$ gives $B(2^n) =$

$2B(2^{n-1}) + 2^n$. We find that $B(2^n) = B(2^{n-1}) + 2^n$, which is impossible. Let us try $a_n^{(p)} = n(2^n)$ next. Plugging this into $a_n = 2a_{n-1} + 2^n$ gives $n(2^n) = 2(n-1)(2^{n-1}) + 2^n$, so this particular solution works. Now we have $a_n^{(p)}$ and $a_n^{(h)}$. Therefore, a solution of a_n is $a_n = n(2^n) + A(2^n)$. Suppose we have the initial condition $a_0 = 2$, then we can find a specific solution by solving for A . When $n = 0$, $a_0 = 2 = 0(2^0) + A(2^0) = A$. Therefore, $A = 2$ and the specific closed form of a_n with initial condition $a_0 = 2$ is $a_n = n(2^n) + 2^{n+1}$.

If the function $F(n)$ in (**) is a product of a polynomial in n and a power of n , then one can describe the particular solution to (**). This is provided in the next theorem. We omit the proof.

Theorem 8: Suppose that the sequence $\{a_n\}$ satisfies (**), where

$$F(n) = (b_r n^r + b_{r-1} n^{r-1} + \dots + b_1 n + b_0) s^n$$

for some constants $b_r, b_{r-1}, \dots, b_1, b_0, s$.

(i) If s is not a root of the characteristic equation of the associated homogeneous linear recurrence relation of a_n , then there exists a particular solution of a_n of the form

$$s^n (p_r n^r + p_{r-1} n^{r-1} + \dots + p_1 n + p_0)$$

for some constants $p_r, p_{r-1}, \dots, p_1, p_0$.

(ii) If s is a root of the characteristic equation of the associated homogeneous linear recurrence relation of a_n with multiplicity m , then there exists a particular solution of a_n of the form

$$s^n n^m (p_r n^r + p_{r-1} n^{r-1} + \dots + p_1 n + p_0)$$

for some constants $p_r, p_{r-1}, \dots, p_1, p_0$.

Example 10: We solve the nonhomogeneous linear recurrence relation defined by $a_n = 6a_{n-1} - 12a_{n-2} + 8a_{n-3} + F(n)$ when $F(n) = n^2$ and $F(n) = n(2^n)$. The characteristic equation of the associated homogeneous linear recurrence relation of a_n is $r^3 = 6r^2 - 12r + 8$. The roots of this equation are $r_1 = r_2 = r_3 = 2$.

A) Suppose $F(n) = n^2$. In this case, $s = 1$ in Theorem 8. Since 1 is not a root of the characteristic equation, (i) of Theorem 8 shows that a particular solution is $a_n^{(p)} = 1^n(p_2n^2 + p_1n + p_0) = p_2n^2 + p_1n + p_0$, where p_2, p_1, p_0 are constants.

B) Next suppose $F(n) = n(2^n)$. Since 2 is a root of the characteristic equation, we will use (ii) of Theorem 8. Thus, a particular solution is of the form $a_n^{(p)} = 2^n n^3(p_1n + p_0)$ for some constants p_1 and p_0 .

Example 11: I will present another example illustrating the use of Theorem 8, except this time I will solve for the full solution of a_n . Suppose we have the nonhomogeneous linear recurrence relation defined as

$$a_n = -5a_{n-1} - 6a_{n-2} + 42(4^n)$$

with initial conditions $a_1 = 56$ and $a_2 = 278$.

Step 1: Let us find the solution for the associated homogeneous linear recurrence relation $a_n^{(h)}$. The roots of the characteristic equation $r^2 = -5r - 6$ are $r_1 = -2$ and $r_2 = -3$. We apply Theorem 3 since they are distinct roots. Therefore, $a_n^{(h)} = B(-2)^n + C(-3)^n$, where B and C are constants.

Step 2: Now we need to find $a_n^{(p)}$. In this case, $F(n) = 42(4^n)$. Since 4 is not a zero of the characteristic equation, we apply (i) of Theorem 8 and get $a_n^{(p)} = p_0(4^n)$.

Step 3: Let's solve for p_0 . Since $a_n^{(p)} = -5a_{n-1}^{(p)} - 6a_{n-2}^{(p)} + 42(4^n)$, we replace $a_n^{(p)}$ by $p_0(4^n)$ and get $p_0(4^n) = -5p_0(4^{n-1}) - 6p_0(4^{n-2}) + 42(4^n)$. Next divide each side by 4^n and obtain $1 - \frac{5p_0}{4} - \frac{3p_0}{8} + 42$. Solving for p_0 yields $p_0 = 16$.

Step 4: We now have $a_n^{(p)} = 16(4^n)$. Hence,

$$a_n = a_n^{(p)} + a_n^{(h)} = 16(4^n) + B(-2)^n + C(-3)^n.$$

We solve for B and C . When $n = 1$, $a_1 = 56 = 64 - 2B - 3C$. When $n = 2$, $a_2 = 278 = 256 + 4B + 9C$. Solving the system of linear equations gives us $B = 1$ and $C = 2$. We arrive at our solution,

$$a_n = 16(4^n) + (-2)^n + 2(-3)^n.$$

CONTRIBUTORS



RAQUEL AKIVA

“I was always interested in the mysteries of our universe, a passion that many scientists and the aspiring possess. I want to step towards contributing to today’s progress towards machines designed to aid humans in that goal to understand the universe. I wrote this paper about linear recurrence relations as a beginner point to my dream. Of my photograph: I think a picture of a galaxy in the shape of the Fibonacci sequence graph is fitting to my biographical statement.”



JOSHUA BERG

“The assignment from my art class was to draw a famous person with his or her pet. The pet didn’t have to be his/her actual pet but one that you think displays the same characteristics as their owner.”



JESSICA CAMERON

“All my life, I’ve been told what to do and what not to do. As a lover of art, its beauty has no rules. Whether it’s mind or soul, be Universal.”



KIRA CHARLES

“I am majoring in Criminal Justice, which is why I was so engrossed by the topic of wrongful conviction. Although I was aware that this issue has become quite a matter of contention, I had only thought about it as a justice issue. After doing research and learning how few colleges in New Jersey had courses on Wrongful Conviction, I realized that individuals weren’t convicted wrongfully solely because of malfeasance, but because of lack of education on this topic in our universities.”



LESTER E. D. COOK

“I am currently attending CCNY where I major in Theatre, Music, History with a minor in Secondary Education. My specialty in history is American politics and government post-1955. I will go on to get my master’s degree and eventually my doctorate.”



CLEAVON HARRIS

“I am currently in my last year of studies at Kingsborough. Being very involved in campus life is very important to me because I would like to be a student who inspires other students to follow their dream. There is nothing great about me. The work that I do under the Supervision of Professor Barcena is pretty impressive, though. I hope that I can bring about significant change in its purpose.”



RICARDO MEDINA

“I was born in Queens in 1967 but lived in Brooklyn all of my life. I graduated from Edward R. Murrow High School in 1985 and have been working for the last twenty-six years as a doorman on the Upper Westside. Currently I am pursuing a Liberal Arts degree.”



YEHUDIS MILCHTEIN

Yehudis Milchtein is an aspiring advocate for education with a passion for life and everything in it. She enjoys connecting with people, dancing, and creative writing. Yehudis is originally from Milwaukee, Wisconsin, and is on track to graduate from Kingsborough in the Summer of 2018.



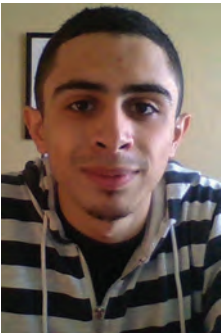
AMANDA MORGAN

Amanda Morgan was born in Brooklyn. At Kingsborough she was introduced to yoga in a class taught by Professor Diana Treglia. Yoga is now a part of her lifestyle, and she attempts to experience the many principles of it. She also relishes the city life with its diverse cultures and cuisine and is currently pursuing a degree in Engineering at New York City College of Technology.



IRIS NOLASCO

“I’m a Honduran immigrant studying Education. A very deep passion of mine is teaching. My goal is to become an excellent educator specializing in ESL (English as a Second Language), because I want to help children that face language barriers, especially the Latin community.”



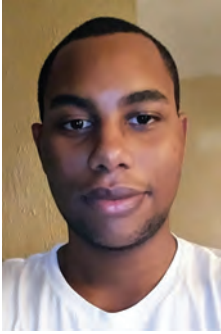
FRANK OREFICE

“I was born into a Puerto Rican and Italian family in Brooklyn. Since I was a child, I’ve been interested in technology. This interest led me to learning how to program on my own and choosing to major in Computer Science.”



ALICIA RAMOS

Alicia Ramos is a June 2017 graduate of Kingsborough. She earned her associate degree in Liberal Arts with a concentration in English. She resides in Brooklyn.



ALEXANDER RICHARDSON

“Ever since I was a young boy, I have been fascinated by art and over time I wanted to expand my skills for a higher profession. My Kingsborough teachers have taught me important skills and ways that I never knew before, and with their lessons, they have guided me to the right direction for a good future.”



CRYSTAL ROSE

Crystal Rose has aspirations of finding the balance between art and medicine as a palliative physician. While lately her studies press her attention toward non-fiction, she’s no stranger to fictional work as a dynamic actor for stage and screen. Originally from Grand Island, New York, she now lives in Brooklyn, where she is adored by her dog, and tolerated by her two cats.



LILIYA RUSTAMOVA

“While I’m majoring in nursing, little did I know this essay would not be another routine assignment, but would actually pique my interest and force me to re-evaluate my sense of self and place in this society. This essay includes the historical and political context of immigration as well as my personal narrative of being a Russian immigrant in New York City.”



KELLY J. WORTHINGTON

“I am a Veteran of the U.S. Navy, where I served as a Hospital Corpsman. I study International Relations with a focus on the Middle East and North Africa.”



JUNLIANG ZHU

Junliang Zhu lives in Brighton Beach. He composed his designs for Experimental Typography.

SUBMISSION GUIDELINES

Distinctions welcomes submissions year-round. The deadline for the Spring 2018 issue is February 1. Submissions that come in after that date will be considered for the Fall 2018 issue (deadline: August 15).

Students: Please submit to *Distinctions* any outstanding research-related course work, whether you wrote it for Honors credit or not. As for visual art, the present editor is most interested in depictions and projects related to New York City and its environs.

Instructors: Please encourage your students who have conducted original and compelling research to submit it to *Distinctions*.

Email the file to me, Bob Blaisdell (Robert.Blaisdell@Kingsborough.edu), with the subject line DISTINCTIONS SUBMISSION or on paper to the Honors House in M377. Include your contact information. I will acknowledge all submissions upon receipt.

Yehudis Milchtein

How to Educate

Frank Orefice

Refugee Limbo: How Low Can We Go?

Cleavon N. Harris

Up-cycling Expired Ibuprofen

Alexander Richardson

Typographic Experiment

Ricardo Medina

Se Puede – Cesar Chavez and the United Farm Workers

Crystal Rose

D. P. and Me

Amanda Morgan

Hatha Yoga to Bikram: My Experience

Jessica Cameron

Typographic Experiments

Iris Nolasco

Por Favor, Let Me Shine:

The Importance of Early Childhood Education for the Hispanic Community

Liliya Rustamova

“Idealistic Myth vs. Genuine Reality”:

The Place of Immigrants in the Twenty-First Century

Kelly J. Worthington

Modern Activism in the United States

and the Sociological Problem of Spectatorship Versus Participation

Alicia Ramos

The Power of the Church

Junliang Zhu

Typographic Experiments

Kira Charles

Wrongful Conviction

Lester E. D. Cook

The Two Paradigms of Behavioral Health Care

Raquel Akiva

Linear Recurrence Relations