Bergen Scholarly Journal

Judith K. Winn School of Honors Bergen Community College

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I. INTRODUCTION

From Honors Conference to Bergen Scholarly Journal: A Brief Review

Maria Ortiz Naretto

What a piece of work is a man, how noble in reason, how infinite in faculties, in form and moving how express and admirable; in action how like an angel, in apprehension how like a god: the beauty of the world, the paragon of animals—and yet, to me, what is this quintessence of dust?

Shakespeare, *Hamlet* (II, 2, 327-332)

The nature of humankind is complex and unclear. The query of the essence of being human has been formulated by diverse disciplines, and still the only common ground reached seems to be the necessity of reformulating our understanding. The *Bergen Scholarly Journal* actualizes *that* necessity in the publication of the first volume of student scholar papers. Academic research as an exercise of deeper analytical thinking begins at the undergraduate level at Bergen Community College. The Bergen Honors Conference showcases the earliest steps of scholarly research that later ends with this publication.

The Bergen Honors Conference, inaugurated by Dr. Maria Makowiecka and Dr. Dorothy Altman in March 2009, launched with a tenacious insistence on debating research articles. Increasing interest and participation in the conference created the urgency of publishing the results of students' analyses. The extended enthusiasm of my peers led me, in Fall 2012, to initiate the amazing endeavor of producing the first Bergen Scholarly Journal with the counsel of Prof. Jennifer Lyden and the tireless collaboration of Michael Park. The Journal has matured into an outstanding publication, thanks to the recognition of undergraduates and faculty members.

The Journal publishes a selection of the finest student papers. The selection committee, consisting of Dr. Altman, Dr. Jacqueline Behn, and Dr. Michael Redmond,

had the final responsibility for selecting the essays that demonstrated substantial research, originality, and clarity. The process that culminates with the Journal started prior to the Honors Conference. Following undergraduates' submissions for the Conference, Bergen Faculty members reviewed every essay with the goal of improving the quality of papers. During the Honors Conference, authors had the opportunity to present and defend their arguments. After the Conference, all participants received faculty comments and were invited to revise their papers, under a faculty mentor, for consideration for publication. The selection committee reviewed the final versions and determined the essays for the Journal.

The production of the Bergen Scholarly Journal involved the support of many Bergen professors, students, and staff. I am indebted to Prof. Lyden, whose hard work and persistence raised the quality of the Journal. The collaboration of Michael Park was outstanding, and I am thankful that he always offered the right guidance. I have a deep appreciation and respect for the Journal Selection Committee and Faculty Readers. They dedicated long hours to assessing the papers and some of them mentored the authors as well. I am indebted to Dr. Geoffrey Sadock and Dr. Carol Miele for their invaluable assistance that supported the completion of the Journal. Thanks to Michael Park, Norman Shafto, and Jonathan Silva, the students who carefully edited the Journal. I would like to recognize Norman, a dear friend, who also gave artistic style to the Journal. I am thankful to Joseph Cavaluzzi, Tom DePrenda, and Lori McCurley, from the BCC Office of Public Relations, for their professional design. Many thanks to Dr. William Mullaney, Vice President of Academic Affairs, who encouraged us in this endeavor and provided financial support. I would like to offer my last words to the students who will continue the legacy of embracing the journey towards knowledge. The Journal belongs to them.

II. PAPERS

Kingston's Voice "Thunders and Jingles like Copper Pans"

Jillian Borrow

Mentor: Dr. Barbara E. Hamilton Mercer County Community College

Maxine Hong Kingston's novel *The Woman Warrior* details her self-development as a woman and a writer, which are inextricably linked identities. She structures her Bildungsroman around the stories her mother told her as a child, called "talk-stories," each of which illustrates a model of womanhood, or archetype, for her to accept, reject, or interpret in formulating her own identity. Simultaneously, Kingston struggles to find her place in America as a second-generation Chinese immigrant. Therefore, she faces both Chinese and American patriarchal gender constructs and must navigate her way through them, while preserving her individual voice. These gender-based identities negate outright or contralaterally demonstrate ambivalence toward Kingston's voice, whether literal (naming her voice a duck's voice) or figurative (provoking internal anxiety when she speaks). She attributes society's antagonism towards her self-articulation to the patriarchal mode of domination—silencing women—a characteristic found in both cultures. Her memoir critically examines Chinese and American feminine archetypes for validity and relevance in the development of her creative voice, and in doing so, subverts patriarchal gender constraints. Kingston claims for herself the authority to write by "re-visioning" the myths' protagonists as feminists and invoking their chi (spiritual energy) of strength. As a writer, she evolves by emulating Mu Lan's retaliatory Tiger energy in "White Tigers," and then Ts'ai Yen's syncretic Dragon energy in "Song for a Barbarian Reed Pipe."

Elaine Showalter's 1981 "Feminist Criticism in the Wilderness" traces the revisionist project of women writers during the 1970s and charges them with the task of creating new feminist paradigms. Women writers have had to revise a literary tradition that misrepresents female characters and undervalues women's writing. Although feminist revisionism is necessary work, reliance on this method of critique fosters a problematic dependence upon the patriarchal tradition it decries. Showalter

proposes that "in practice, the revisionary feminist critique is redressing grievance and is built upon existing models.... So long as we look to androcentric models for our most basic principles—even if we revise them by adding the feminist frame of reference—we are learning nothing new" (183). Therefore, revisionism, as a critical evaluation of one's predecessors, is the first stage for a two-fold creative process for a woman writer. The teenage protagonist Maxine Hong Kingston asserts her individual voice while retaliating against the double constraints of Chinese and American male hegemony. As an adolescent, her rebellion is fueled by vengeance against Chinese proverbs: "girls are maggots in the rice" (43). This is coupled with the American stereotype of the quiet Chinese-American girl: "I hated the ghosts [Americans] for not letting us talk" (183). The young Maxine Hong's self-development mirrors Mu Lan's Tiger energy of seeking justice. The feminist writer Kingston channels Ts'ai Yen's Dragon energy in her synthesis of aspects of American and Chinese cultures, which signifies creative progress.

Early on, Kingston learns that the voice is metonymy for personality in both Chinese and American cultures. According to Mikko Keskinen's analysis of voice in feminist literary criticism, voice "relates to authenticity, identity, and self-expression" (4). Therefore, a person who speaks loudly would be considered "bold." Boldness is not a universally acceptable trait for women to possess; however, the patriarchal effort to silence women is connected to limiting their agency, while "feminist criticism represents the discovery/recovery of a voice" (Keskinen 4). Kingston compares the femininities of Chinese and American women through their voices: Chinese women speak loudly, American women whisper. In the American school, she imitates the American women's whisper but locates it within her Chinese-American girlhood. She notes that the other Chinese-American girls at school share a common, socialized "shyness" in their demeanor and speech. In retrospect, Kingston suggests that she and her peers adopt the American-feminine whisper as part of the assimilation process into American culture. "Normal Chinese women's voices are strong and bossy. We American-Chinese girls had to whisper to make ourselves American-feminine.... Most of us eventually found some voice, however faltering. We invented an American-feminine speaking personality" (Kingston 172). Here Kingston relates personality to voice. She even implies that American femininity is a construct of artificial girlhood by omitting "American women" from her comparison of Chinese women's voices and Americanfeminine voices. She does not compare Chinese women to American women.

Rather than reinforce Western, white, hegemonic liberalism, which presumes that Western societies are all places of gender equality and casts Eastern societies as places of patriarchal oppression, Kingston reveals the silencing mode characteristic of American female repression (Pyke 47; Jenkins). According to Karen Pyke's sociological study of Asian-American women:

The line drawn in the struggle for gender equality is superimposed over the cultural and racial boundaries dividing whites and Asians. At play is the presumption that the only path to gender equality is via assimilation to the white mainstream... Asian ethnic worlds are regarded as unchanging sites of male dominance and female submissiveness. (49)

The fact that Chinese women speak loudly belies this assumption of Asian "female submissiveness." However, Kingston is too young and too "American" to be a loud "Chinese" woman: "Sometimes I hated the ghosts for not letting us talk; sometimes I hated the secrecy of the Chinese" (Kingston 183). Here Kingston refers to her status as an outsider to Chinese rituals, since she was born in America. The young Maxine finds solace in playing with the Black girls at school: "I liked the Negro students (Black Ghosts) best because they laughed the loudest and talked to me as if I were a daring talker too" (166). This quote foreshadows Kingston's eventual emergence as a "daring talker."

The alternative to being a "daring talker" is to be a silent madwoman, according to Maxine, who, as a young, creative, sensitive individual, requires freedom of self-expression even more than other persons: "I thought talking and not talking made the difference between sanity and insanity. Insane people were the ones who couldn't explain themselves. There were many crazy girls and women" (186). The word "many" allows the reader to comprehend the numbers of girls and women who break down mentally within the confines of their gender roles. Kingston connects her silence (denial of voice) to the physical pain in her throat, which warns her whenever she is being silenced. She fears devolving as one of these "crazy" women and desperately attempts to express herself by confiding her secrets to her mother, her role model and teacher ("talk-stor[ier]" and "champion talker"). However, Kingston does not receive the maternal approval for which she craves; rather, she is silenced by her mother: "I shut my mouth, but felt something alive tearing at my throat, bite by bite, from the inside. Soon there would be three hundred things, and too late to get them out before my

mother grew old and died" (Kingston 200). Kingston's 'Self' is the "thing" alive tearing at her throat because it is being suppressed. On the other hand, Kingston's attempt to confide in her mother is a first step towards writing: Kingston's "confessions" are her own "talk-stories." In order to write, Kingston must "confront the sources of both her power and her silence" (Outka 461).

Kingston turns first to Mu Lan as a source of feminist inspiration. Mu Lan is a strong warrior who, although she must disguise herself as a man to serve as general, does not disown her womanhood. In fact, Mu Lan embraces and employs her identity as a woman warrior, most notably when she exposes her breasts to the corrupt baron, capitalizing on the element of surprise. In Katherine Hyunmi Lee's "The Politics of Liminality and Misidentification: Winifred Eaton's *Me* and Maxine Hong Kingston's *The Woman Warrior*," she identifies key feminist values in Mu Lan's story:

The woman's body as a site of empowerment, the performative nature of gender, and a critique of militaristic patriarchy; the narrative also subverts the dominance of Western narratives by representing a Chinese woman as a model of strength and utilizing a Chinese story as a source for racial and gender identification. (27)

Mu Lan is an admirable figure for leading an army and conquering her enemies, but with feminine values. For instance, her army did not rape. "I inspired my army, and I fed them. At night I sang to them glorious songs that came out of the sky and into my head" (37). Mu Lan's charisma is manifested in her songs, which represent the oral tradition. However, Mu Lan credits nature ("the sky") as the author of her verse, not her own creativity.

Mu Lan draws her power from her affinity with nature. The elders, who mentor Mu Lan, teach her the ways of the animals and focus on Tiger ways and Dragon ways. Mu Lan's association with nature (her source of power) implies that the natural order of things is for women to be valued and developed in their potential (Feng 237). For example, Mu Lan assumes the symbolism of the White Tiger in Chinese mythology (the chapter title's namesake). The Tiger is known for its military prowess, as the "god of war" (Schumacher). Mu Lan asserts her legitimacy as a Chinese heroine and legendary figure by claiming to have the patronage of the god of war and literature himself: "We would always win, [with] Kuan Kung...riding before me. I would be told

of in fairy tales myself" (Kingston 38). Mu Lan's declaration that she is the subject of fairy tales circumscribes her within those tales as an archetype. Furthermore, Kuan Kung's aegis indicates Mu Lan's conformity to the patriarchal literary tradition. The White Tiger is also known for its role as the "preserver and protector of the dead" (Schumacher). Mu Lan avenges her family and the Han people with the Tiger's ethos and enthusiasm: "Copying the tigers, their stalking skill and their anger, had been a wild, bloodthirsty joy" (Kingston 28).

However, Kingston ultimately rejects Mu Lan as a model because she is merely an instrument of her people's vengeance. She does not write the text that is tattooed on her back. She does not take credit for the songs she sings to her army. She does not speak for herself; she represents the Han people. "Wherever you go, whatever happens to you, people will know our sacrifice,' my mother said. 'And you'll never forget either.' She meant that even if I got killed, the people could use my dead body for a weapon" (Kingston 34). Her family's focus on her body as record of their grievances highlights the power of words as weapons but undermines Mu Lan's power as an individual agent. "From the words on my back, and how they were fulfilled, the villagers would make a legend about my perfect filiality" (Kingston 45). The construction of the sentence is passive: "they [the words] were fulfilled," not "I fulfilled the words." Mu Lan is remembered for her loyalty to her family and people, not for her individual talents as a leader. As she grows up and discovers the drawbacks of Mu Lan's example, Kingston renounces its methodology of violence, as impractical and ill-suited for her: "I dislike armies...[And] Nobody in history has conquered and united both North America and Asia" (49). Vengeance would only reproduce the power dynamics of the past; it would not generate an equitable future. Mu Lan has a unified sense of purpose and an unambiguous ethnic identity, while Kingston is ambivalent about her purpose and her Chinese-American heritage.

Instead, Kingston focuses on the more powerful, enduring legacy of storytelling. "The swordswoman and I are not so dissimilar... What we have in common are the words on our backs. The idioms for *revenge* are 'report a crime' and 'report to five families.' The reporting is the vengeance—not the beheading, not the gutting, but the words" (53). However, the word "report" means "to repeat (something heard); to relate as having been spoken by another; to retell" ("Report"). When Mu Lan shows the baron the words on her back before she kills him, saying, "You are responsible for this" (44), the words act as the weapons.

Mu Lan, as transmitter-of-text, is a "medium" for her people. But Kingston resists this collectivist purpose; she does not want to represent Chinese culture, to "repeat" it, to "embody" the culture as an archetype like Mu Lan, whose voice is submerged within the culture. Kingston's battle as a woman warrior is to defend the integrity of her voice as uninhibited, authentic to her own experience. "You can't entrust your voice to the Chinese...they want to capture your voice for their own use. They want to fix up your tongue to speak for them" (169). She wants to express her own mind, to speak for herself. Even though Kingston retells her mother's 'talk-stories' of Mu Lan, the creative stamp, the details, are all her own: "The beginning is hers [Kingston's mother's], the ending, mine" (206). Like Showalter before her, Kingston the writer recognizes the limits of retributive feminism and seeks new models for creativity.

The adolescent Kingston claims her voice when she stands up to her mother and asserts her independence. She refuses to live down to her mother's prediction that as a young woman she will grow up to be a "slave or a wife." She even declares her prowess as a writer, using the "ghosts" tongue (English), which foreshadows her future writing career:

One night when the laundry was so busy that the whole family was eating dinner there, crowded around the little table, my throat burst open. I stood up, talking and burbling. I looked directly at my mother and at my father and screamed, 'I can make a living and take care of myself... I'm so smart, if they say write ten pages, I can write fifteen. I can do ghost things even better than ghosts can. (Kingston 201)

The fact that Kingston screams, which is by nature aggressive, instead of whispering in her "pressed-duck" voice signifies her transformation from a timid girl to a confident woman. Unfortunately, her assertive act is interpreted as disrespectful to her mother (and to the rest of her family) and she is ostracized from the group. But Kingston accepts this consequence in exchange for self-expression: "And suddenly I got very confused and lonely because I was at that moment telling her my list, and in the telling, it grew. No higher listener. No listener but myself" (204). Her list grows because now that she has won for herself free speech, she has much more to say, perhaps even ideas she did not allow herself to say before. Furthermore, while lonely, Kingston needs "no higher listener" because she is enough; she no longer requires the maternal approval

she needed as a child.

As Kingston embraces her voice, she acknowledges its nuanced and contradictory nature, which is much like the Chinese Dragon that Mu Lan seeks as part of her training. According to Schumacher's description of Eastern dragons, dragons are "shapeshifters" and are "often paired with the Phoenix," because together they "represent both conflict and wedded bliss." Kingston, as a "Ho Chi Kuei" (a "bastard carp," a "Good Foundation Ghost")—a Chinese-American—could easily be viewed as a "shapeshifter," at variable times "Chinese" in identity, at others, "American." Kingston describes Dragons as fundamental elements of the Earth, too expansive for a human to see all at once:

Tigers are easy to find, but I needed adult wisdom to know dragons...I learned to make my mind large, as the universe is large, so that there is room for paradoxes...The dragon lives in the sky, ocean, marshes and mountains; and the mountains are also its cranium. Its voice thunders and jingles like copper pans. It breathes fire and water; and sometimes the dragon is one, sometimes many. (28–9)

She suggests that Tigers, with their *modus operandi* of vengeance, are uncomplicated and therefore less worthy of aspiration. Therefore, Mu Lan's legacy of retribution is limited in its impact, which Kingston believes should be intellectual. The Dragon, by contrast, is the guide of "wise adults," who "know" more truths than the simple tales of domination and power acquisition which leave out marginalized voices, such as women's voices, such as Mu Lan's imagined voice.

Kingston has "room" in her mind for paradoxes, among "what's just [her] child-hood, just [her] family, just the village, just movies, just living" (205). The dragon can be either "one" or "many"; it does not rely on just one perspective: "The [words'] overabundance and the inclusion of racist epithets leads the reader to wonder if words do not fit on her 'skin' because she is caught in so many contradictory discourses that they co-exist without resolution" (Lee 29). For Kingston to "resolve" her paradoxical identities as a Chinese-American woman, she would have to choose one of them. The word 'resolve' means "to show conclusively to be of a certain character" ("Resolve"). Kingston is unlikely to relinquish her personal identity, which insists that she accept both sides of her heritage. She compares herself to the poetess Ts'ai Yen, a Chinese

woman who marries a "barbarian" and has his children. Ts'ai Yen's singing "matched the [barbarians'] flutes." She "sang about China and her family there. Her words seemed to be Chinese, but the barbarians understood their sadness and anger. Sometimes they thought they could catch barbarian phrases about forever wandering" (Kingston 209). As an author, she uses the language of the barbarians (English) to write about her family, much like Ts'ai Yen imitates the sound of the barbarians' reed pipe. American readers can understand the emotions of "sadness and anger" expressed in Kingston's work because these emotions are universal. Yet Kingston, like Ts'ai Yen, is a "forever-wanderer" because the writing life is a solitary one.

Kingston's work challenges the traditional, patriarchal literary canon by subverting its feminine archetypes and questioning simplified discourses of race and gender. Her initial expression of Tiger energy reflects this confrontation. However, the real victory is won through Kingston's expression of Dragon energy; it eclipses power struggles that detract from the higher purpose of creating literature.

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Bullying in Elementary Schools

Erin Hazen

Mentor: Dr. Anne Maganzini Bergen Community College

Abstract

Throughout the lifespan, one experiences many social hardships that test one's ability to cope with one's environment. An example of this is bullying in schools. Although bullying is most commonly seen in college and high school, elementary schools are also seeing a manifestation of physical and verbal abuse. This paper focuses on answering the following questions:

- 1. What is the nature of bullying?
- 2. What are some typical characteristics of a bully and victims of bullying?
- 3. What are the consequences of the bullies and their victims?
- 4. What research has been done on bullying?
- 5. Who is an example of an elementary school bully? What changes that behavior?
- 6. What is an example of elementary school bullying?
- 7. What actions have been taken to prevent bullying?

By defining "bullying" and studying the causes and effects of bullying, mistreatment and abuse in schools can be prevented and students who are oppressed by their peers can be given a strong support system.

Bullying in Elementary Schools

The Nature of Bullying

According to the pioneer of bullying research, Dan Olweus, bullying is "a specific type of aggressive behavior that involves intent to cause harm, occurs repeatedly, and in-

volves power of imbalance" (Hunt, et al. 2012). Olweus has also defined it as "a student is being bullied or victimized when he or she is exposed, repeatedly and over time, to negative actions on the part of one or more other students" (Dake, 2003). In his article, Joseph A. Dake found that elementary school bullying in Norway, Sweden, Denmark, Finland, Germany, Spain, Italy, England, Scotland, Ireland, Australia, Japan, and Canada is just as prevalent as in the United States. For example, 49.8% of elementary school students in Ireland are exposed to bullying, while in the United States, the percentage is 19.7% (2003).

The common stereotype associated with bullying is that targets tend to have physical disabilities, be obese or possess other distinct physical characteristics. However, Olweus realized in his studies that the actual victims of bullying tend to be "smaller and weaker than students not involved in bullying" (2003). However, despite studies focused on the profiles of victims, no definite or confirmed information has emerged in the distinction between victimized and non-victimized students (2003). Another aspect of bullying is deviation in gender. In relation to physical bullying, boys are more likely to initiate this type of abuse than girls. However, studies have shown that girls are more likely to engage in indirect bullying, such as social exclusion and spreading rumors (2003).

In addition, certain behavioral conduct has been correlated to bullying. Those who were involved in victimizing students were usually linked to issues like "physical fighting, weapon carrying, theft, property damage, substance abuse, cheating, and breaking the law" (2003).

The Extent of Bullying

The damaging effects of bullying have been shown to have significant long-term consequences on both the bullies and their victims. Dake states that bullies "began dating at a younger age than other students and these relationships often evolved at a more advanced level than peers" (2003). However, these types of relationships are "less emotionally supportive and less equitable" and are reported to have "more acts of physical and social aggression toward their dating partners."

In a study conducted by Mark S. Chapell (2006), the continuity of bullies, victims, and bully-victims were studied from elementary school to college. By surveying 119 undergraduates, he found from the questionnaires that "25 who were bullied in college, 18 (72%) had been bullied in high school and elementary school" and, thus, there was a "positive correlation between having been bullied in high school and ele-

mentary school" (2006). Chapell adds that "Sourander, Helstela, Heienius, and Piha's 8-year longitudinal study published in 2000 found an association among those being bullied at age 8 and age 16, as well as among being a bully at age 8 and 16, and this also showed the same positive correlation." (2006). According to both of these experiments, Chapell concludes that when an elementary school student is bullied, he or she is more likely to become a bully himself or herself in high school or college. When the issue of bullying is not addressed or resolved in elementary school, there is a cycle of bullies creating victims and victims becoming bullies.

Research on Bullying

Since elementary school bullying has been shown to have long-term consequences, there have been studies to understand bullying further during this period and to create a valid test for studying bullying. In Australia, two elementary schools gave questionnaires to students 8 years and 15 years and completed the first version of the Personal Experience Checklist (Hunt et al, 2012). This checklist, also known as PECK, was developed as a self-report to measure the students' exposure to bullying (2012). On this test, male and female students from different ethnic and cultural backgrounds from each school were given an open-ended sixty-five item test which included a scale of frequency ranging from 1, which indicated "never," to 5, which indicated "most days" (2012).

Based on the answers, two studies were produced. The first study was created to develop a factor structure for bullying. The test was divided into five factors, which included the total mean PECK score, "relational/verbal bullying," "cyberbullying," physical bullying," and "bullying based on culture" (2012). Under these factors were subcategories of specific types of bullying. The table on the following page contains the results found in Hunt's first study.

After ensuring that the data were approximately normally distributed, it was found that "most participants reported low to moderate levels of bullying resulting in moderate positive skew" (Table 2). In addition, the consistency of each scale was ".91 for verbal-relational bullying, .90 for cyber bullying, .91 for physical bullying, and .78 for bullying based on culture" and total correlation among these factors was .40 within each of the scales (Table 2). The second study also confirmed the validity of the PECK test.

From the data, it was found that students reported to have been bullied two or more times a month (2012). In addition, the factors from the PECK test were put on a chart with items from another test called the OBVQ cut-points. This new chart

Table 2
CFA Pattern and Structure Coefficients of the 32-Item PECK

Variable	Factor 1	Factor 2	Factor 3	Factor
Factor 1: Relational-verbal bullying				
Other kids say mean things behind my back	.76 (.76)	0 (.53)	0 (.64)	0 (.56
Other kids try to turn my friends against me	.72 (.72)	0 (.50)	0 (.60)	0 (.5
Other kids tell people not to hang around with me	.74 (.74)	0 (.51)	0 (.62)	0 (.5
Other kids tease me about things that aren't true	.75 (.76)	0 (.53)	0 (.63)	0 (.5
Other kids ignore me on purpose	.68 (.68)	0 (.47)	0 (.56)	0 (.5
Other kids call me names because I can't do something	.65 (.65)	0 (.45)	0 (.54)	0 (.4
Other kids make rude gestures at me	.66 (.66)	0 (.46)	0 (.55)	0 (.4
Other kids tell people to make fun of me	.81 (.80)	0 (.56)	0 (.67)	0 (.5
Other kids call me names because I'm a bit different	.58 (.58)	0 (.41)	0 (.49)	0 (.4
Other kids make fun of my friends	.55 (.56)	0(.39)	0 (.47)	0 (.4
Other kids make death stares at me	.65 (.66)	0 (.46)	0 (.55)	0 (.4
Factor 2: Cyber bullying				
Other kids say nasty things to me by SMS	0 (.52)	.75 (.75)	0 (.53)	0 (.5
Other kids threaten me over the phone	0 (.61)	.88 (.87)	0 (.61)	0 (.6
Other kids send me nasty e-mails	0 (.49)	.71 (.71)	0 (.50)	0 (.5
Other kids harass me over the phone	0 (.61)	.89 (.88)	0 (.62)	0 (.6
Other kids say nasty things about me on websites	0 (.58)	.83 (.83)	0 (.58)	0 (.6
Other kids send me computer viruses on purpose	0 (.52)	.67 (.76)	0 (.53)	0 (.5
Other kids say nasty things about me on an instant messenger or chat room	0 (.40)	.57 (.58)	0 (.41)	0 (.4
Other kids make prank calls to me	0 (.46)	.66 (.66)	0 (.46)	0 (.4
Factor 3: Physical bullying				
Other kids hit me	0 (.61)	0 (.51)	.72 (.73)	0 (.5
Other kids punch me	0 (.61)	0 (.51)	.73 (.73)	0 (.5
Other kids kick me	0 (.69)	0 (.58)	.83 (.83)	0 (.5
Other kids shove me	0 (.58)	0 (.49)	.69 (.70)	0 (.4
Other kids trip me over	0 (.65)	0 (.55)	.78 (.78)	0 (.5
Other kids tell people to hit me	0 (.65)	0 (.54)	.77 (.77)	0 (.5
Other kids say they'll hurt me if I don't do things for them	0 (.58)	0 (.49)	.70 (.70)	0 (.4
Other kids wreck my things	0 (.58)	0 (.48)	.69 (.69)	0 (.4
Other kids play practical jokes on me	0 (.51)	0 (.43)	.62 (.62)	0 (.4
actor 4: Bullying based on culture				
Other kids make fun of my language	0 (.49)	0 (.49)	0 (.47)	.66 (.6
Other kids make fun of my culture	0 (.47)	0 (.47)	0 (.45)	.64 (.6
Other kids tease me about my voice	0 (.42)	0 (.42)	0 (.40)	.56 (.5
Other kids won't talk to me because of where I'm from	0 (.60)	0 (.60)	0 (.40)	.82 (.8

Note. Mean standardized coefficients that emerged across bootstraps are presented; structure coefficients are presented in parentheses. CFA = confirmatory factor analysis; PECK = Personal Experiences Checklist; SMS = short message service.

showed that there was 20.8% global bullying measure, 15.3% verbal bullying, 9.3% physical bullying, and 11.1% students who reported rumors spread about them (2012). Another aspect of bullying that was shown was the feelings and psychological consequences. It was found that the:

relations between these measures of psychopathology and the total and relational-verbal PECK scales were moderate, and their relations to the physical bullying and bullying based on culture scales were small in magnitude. The associations between these measures of psychopathology and the cyberbullying scale were small or not significant. (2012)

Although the PECK test indicated moderate results, the PECK test was proven successful in further bullying research and indicated how strong a correlation existed between the experiences described in the OBVQ test and the experiences described in the PECK test.

Confessions of An Elementary School Bully

One of the most effective ways to determine how bullying occurs is to see how a bully thinks and behaves. In a special report in *People*, fifteen-year-old Daniel Harrison reflects on his elementary and middle school experience as a bully. In elementary school, Daniel Harrison began making fun of his friend Courtney Kondor (p. 70, 2010). Initially, it began as light-hearted teasing, like messing up her hair and calling her names. For Harrison, "it felt cool to not be made fun of and to be the one making the fun" and he never considered himself a "mean bully" but rather "as a playful bully: I bullied with a smile on my face" (2010). However, the joking took a more serious turn in December 2007 when the bully snatched Kondor's hat from her head and began tossing it around with other students and then proceeded to stick the hat down his pants.

The next morning, Harrison was sent to the dean's office. Although he was punished, he states, "I was worried about getting grounded...I wasn't worried about hurting Courtney's feelings" (2010). Although he was punished by the dean and his parents, Harrison finally realized his mistakes when he began reading Ben Mikaelsen's *Touching Spirit Bear*. This story depicts an angry teen who torments a white bear. Harrison realizes that he has been reflecting the same behavior as the teen in *Touching Spirit Bear* and decides to change his attitude and behavior. Harrison states, "It was just perfect timing to read that book...I realized who I was, and I hated it" (2010). In response, Harrison wrote a letter to Mikaelsen explaining how his novel had inspired him.

A few months later, Harrison took top state honors in the national Letters About Literature Contest. Ever since this transformation, Harrison has mended his friendship with Kondor. Through this experience Harrison has become active with the bullying issue and states, "I always end up befriending the people being bullied... it's satisfying to help them out" (2010).

Example of Elementary School Bullying

Despite the fact that most suicides and bullying occur in high school and college, a number of cases are beginning to involve out of control bullying in elementary schools. In 2009, 11-year old Carl Joseph Walker-Hoover hanged himself after school bullies had repeatedly teased him about his sexuality (James). Although Carl Joseph Walker-Hoover appeared to be a healthy individual who participated in many social activities like Boy Scouts, football, charity, and church functions, Hoover was called offensive and homophobic names on a daily basis. According to his mother, Sirdeaner

L. Walker, Carl had experienced bullying ever since he had started sixth grade. After seeing her son victimized, Walker pleaded to the New Leadership Charter School for intervention. However, on April 6, her son was found hanging by an extension cord on the second floor of his home.

In response, the Gay, Lesbian and Straight Education Network launched a "multipronged education campaign that fought against the usage of anti-gay language and bullying." According to the GLSEN spokesman, Daryl Presgraves, "When you are in elementary school, one of the first things you learn is the feeling of hurt when you are called 'gay' or 'fag'...it doesn't matter if you are gay or straight. The term 'gay' has become synonymous with 'uncool" (2001). Although Ann Haas, director of the Suicide Prevention Project at the American Foundation for Suicide Prevention stated that the number of elementary school students committing suicide is relatively low, the numbers are nonetheless "creeping up" (2001). Despite the fact that Hoover's life was cut short, his mother continues to stress the importance of anti-bullying and states, "I am determined for the rest of my life to advocate on behalf of students who are voiceless and silent" (2001).

Solutions: Harvard Anti-Bullying Program

Since elementary school bullying is clearly an issue that needs to be addressed, psychologist Izzy Kalman and the Harvard Elementary School have attempted to discover an approach that "teaches kids in a fun and powerful way to use well-established psychological principles to handle bullying by themselves, without anyone's help and without getting anyone in trouble" (Kalman 2010). The solution came from the Harvard Elementary School fifth-grade class. In a letter, students explained how they researched different programs and websites about how to handle bullying. They discovered that educating people about the issue was the most effective way to counter-act bullying. So, students began working on different projects like power points, plays, posters, comic strips, podcasts, and created a website. On this website, solutions included confronting the bully about rumors, agreeing with the bully, changing the conversation to a different topic, acting as if he or she won, and showing no emotion (ByeByeBullies, 2010). In addition, this website provides helpful videos, examples, and visual aides to help students handle bullies. Due to these pro-active methods, local newspapers and CBS New York have taken an interest in the project. So Kalman and the Harvard Elementary School fifth grade class learned that they need "an approach that is based on psychology rather than law-enforcement" and to "teach people how to handle the problems of life, not to try to protect them from those problems and to punish problem-makers out of existence" (Kalman 2010).

Solutions: Elementary School Bullying Intervention

In order to test different ways to address this important issue, researchers examined the effectiveness of elementary school bullying intervention through a longitudinal study. This pilot study consisted of "1) zero tolerance for behavioral disturbances such as bullying, victimization, and standing by during violent acts, 2) a discipline plan for modeling appropriate behavior, 3) a physical education plan designed to teach self-regulation skills, and 4) a mentoring program for adults and children to assist children" (Twemlow, et al, 2001). In this study, two elementary schools were used as the experimental and control group. The experimental group received teacher in-service training on zero-tolerance bullying. This intervention program ran independently from 1994-1998 with minimal support from the research team. Personnel from schools volunteered their time and at least \$1500 was spent on materials like data entry, analysis, and write-up for school bullying (2001). However, both schools received support from psychiatric consultants who focused on medical assessment and referral. In addition, the Metropolitan Achievement Test was given to assess reading, written language, science, social studies, and research and thinking skills.

The results from this study showed "a dramatic reduction in disciplinary referrals in the experimental school associated with the intervention program from 74 for physical aggressiveness in 1994-1995 to 34 in 1995-1996 and 36 in 1996-1997" (2001). In addition, the scores for the Metropolitan Achievement Test showed that the experimental school that had the intervention program showed significant improvement in academic subjects ("from the 40th percentile to the 58th percentile") compared to the control group, which did not change during the time of the study (2001). In addition, "analyses indicate that not only did the school's overall performance improve over the period of the program but individual students' performance improved significantly more in the experimental school" (2001). Clearly, the need for pro-active education on bullying shows a correlation with students' academic success.

Solutions: New Jersey HIB Law

Three months after the death of Rutgers University student, Tyler Clementi, New

Jersey Governor Chris Christie signed the Harassment, Intimidation, and Bullying Law. According to the State of New Jersey Department of Education, "harassment, intimidation and bullying' means any gesture, any written, verbal or physical act, or any electronic communication, whether it be a single incident or a series of incidents, that is reasonably perceived as being motivated either by any actual or perceived characteristics...." (State of New Jersey, 2011). In addition, the law appoints specific people to run anti-bullying programs, requires an investigation the same day the event occurs, requires mandatory bi-yearly reports from the superintendents on which the school will receive an online letter grade, and trains teachers, school board members, and administrators (Perez-Pena 2011). The policy also includes specific description of expected behavior from students, consequences and appropriate remedial actions for a person who commits any acts of HIB (State of New Jersey 2011).

Although the HIB law has ensured protection against all forms of bullying, some have considered the law too extreme, and it has commonly been considered "the toughest legislation against bullying in the nation" (Hu, 2011). According to New Jersey Association of School Administrators' Richard G. Bozza, "I think this has gone well overboard... Now we have to police the community 24 hours a day. Where are the people and resources to do this?" (Hu, 2011). In addition, thousands of school employees from a total of 200 districts were required to attend training sessions which included a \$1295 package containing a DVD and a 100-page manual (2011). Currently, the balance between appropriate consequences and overstepping privacy boundaries is still under discussion.

Conclusion

Through close examination of the nature, extent, and examples of elementary school bullying, effective solutions can be made to counteract this epidemic issue. Although many schools have responded to the issue, additional studies and improvements on bullying laws must be made to further eliminate bullying throughout the lifespan. In addition, families should stress the importance of respect and acceptance so that children are protected at both home and school. By taking precautions beforehand, bullying can be controlled before it gets out of hand.

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Psychoanalysis of Meursault: The Hero of the Absurd

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Camus' *The Stranger* demonstrates the classic idea of the hero myth/archetype through Meursault's journey and discovery of the absurd. However, Camus departs from the Jungian archetype in that Meursault is a hero of the absurd, a bit unlike the great mythic heroes of ancient Greece. The hero of the New Age goes through the journey of nature to culture, from the unconscious mind to the conscious mind, transcending the rites of passage as described by Campbell who defines the hero's journey as:

The so-called rites of passage, which occupy such a prominent place in the life of a primitive society (ceremonials of birth, naming, puberty, marriage, burial, etc.), are distinguished by formal, and usually very severe, exercises of severance, whereby the mind is radically cut away from the attitudes, attachments, and life patterns of the stage being left behind. Then follows an interval of more or less extended retirement, during which are enacted rituals designed to introduce the life adventurer to the forms and proper feelings of his new estate, so that when, at last, the time has ripened for the return to the normal world, the initiate will be as good as reborn. (Campbell 8-9)

Meursault's journey, like the classic mythic adventure, involves a transformation into heroism that is both physical and mental. His physical journey culminates with a murder in *The Stranger*, which propels him toward his destiny. His mental state is sacrosanct by his journey's end. After assessing the prejudice and absurdity of culture, he accepts the events of his life as he awaits his death in the detention cell.

Like Odysseus, whose sole purpose in the journey was to find his way home, so it is that the hero in *The Stranger* is unconsciously looking for a place in the world

where he feels at home. Both men are heroes who test and journey away from the society where they live to find a home in exile. Showalter states that, "If this final state of mind represents an end to his exile or alienation, the novel can also be thought of as a journey or a quest" (Showalter 75). If so, let us begin with the first glimpse the reader gets of Meursault the man.

At the beginning of the text, one finds Meursault on his way to his mother's funeral, news of which he has received quite recently. Once he reaches the town of Marengo where his mother had lived at a home for the elderly, Meursault takes the first step on the journey of the hero. The significance of his mother's death can be metaphorically translated as his initial step toward autonomy in the journey of the hero. As in the development of a child, the first step in the process of independence as characterized by the myth of the hero is the separation from the mother. The full effect of the schism between Meursault and his mother can be noted in the initial scene when the caretaker says, "... 'We put the cover on, but I'm supposed to unscrew the casket so you can see her.' He was moving toward the casket when I stopped him. He said, 'you don't want to?' I answered, 'No" (Camus 6). Though later on in the text the reader learns that the literal separation between Meursault and his mother occurred when he actually decided to place her in the home at Marengo, this initial scene symbolizes the breaking away from the mother in the mythic tale of the hero.

Consequently, as is expected in the hero archetype, Meursault begins his journey toward self realization through the encounter of several obstacles, some of which he fails to overcome as the story goes. In Meursault's journey, since he is a hero of the absurd, his encounters with culture and the realm of the superego are his obstacles as a hero. Throughout the text there are several occasions during which Meursault is in the realm of culture, since it is inevitable that he interacts with people, all of whom force him to encounter culture.

One of the first times Meursault faces a moral dilemma, brought upon by someone representing the realm of culture, occurs when Raymond, his neighbor, asks him to write a letter in Raymond's name to a woman who he claims has cheated on him. Raymond, who is fond of assaulting women, brings up the subject of the letter by telling Meursault how he had been so good to this woman who, according to him, took advantage of him and lived off of his money. The charade continues and Raymond finally reveals that he beat the woman until she bled because he suspected that she was cheating on him. His misogyny is proven even further by his comment on

Salamano's maltreatment of his dog. Speaking to Meursault he says, "If that isn't pitiful!' he asked me didn't I think it was disgusting and I said no" (Camus 28). Through this almost insignificant comment, Raymond makes it clear that he thinks beating a dog is far more deplorable than beating a woman. Meursault, quite inebriated from drinking far too much wine, agrees to write the woman a letter for Raymond because in Raymond's opinion, the woman has not had enough punishment just yet. In his awkwardly drunken state, Meursault replies to Raymond's question of what he thinks of the situation much as he answers everyone else, "I said I didn't think anything but that it was interesting. He asked if I thought she was cheating on him, and it seemed to me she was; if I thought she should be punished and what I would do in his place, and I said you can't ever be sure, but I understood his wanting to punish her" (Camus 32). This scene, which represents an encounter of culture and society, is a challenge for Meursault because he has no moral compass. He chooses to help Raymond for no apparent reason other than because this situation happens to be planted in front of him at this point in time. A moral person of the realm of culture would realize that Raymond is a morally deprived man with no legitimate evidence for his accusation. Meursault, not accustomed to dealing with this realm properly, stumbles through this obstacle and seems to fail to realize what his actions may represent for this woman who indeed gets beaten over again.

The main event that causes Meursault's clash with the realm of culture is the climax of the story in part two of the narrative, when Meursault murders the Arab. This scene, in its extensive use of descriptive metaphors and in the action of murder itself, demonstrates how society attacks Meursault and causes the murder. Because of the constant correlation in the text between light, fire and the sun to society, it is evident that these symbols come to represent the culture of 1950s French-occupied Algeria, where Meursault's life unfolds. The culture of the period is one of French colonization and mental clashing with the Algerian stranger/slave culture. French-controlled Algeria fell under the strong racist and classic ideals of French aristocratic culture. This French aristocratic culture is represented in the text by the sun and light which Meursault describes as, "The scorching blade slashed at my eyelashes and stabbed at my stinging eyes. That's when everything began to reel. The sea carried up a thick, fiery breath. It seemed to me as if the sky split open from one end to the other to rain down fire" (Camus 59). At this moment, the clash of dealing with the Arab who had injured Raymond earlier on was too much a taste of the realm of culture for

him to handle. He was literally blinded and physically affected by the intense moment of having to look culture in the face to its full extent. Though it may seem that Meursault has not made the heroic move in killing the Arab at this point in the story, his ability to assert his guilt through logic during his trial shows that Meursault has gained knowledge from the event. The fact that it took him so long to realize the truth (that he is in fact guilty of killing a man) shows that this particular obstacle was tougher than most of the others he had to get through before it. After months of questioning and many days of sitting through his trial, it was only when the prosecutor made it his main purpose to demonstrate that Meursault had not cried during his mother's funeral that Meursault confessed, "It was then I felt a stirring go through the room and for the first time I realized that I was guilty" (Camus 90). Though irrelevant to the case at hand, the jury was swayed to see Meursault as a villain and a menace to society simply because he had not cried at his mother's funeral. A hero overcomes an obstacle by learning from it and surely this scene proves to be Meursault's greatest obstacle in the entire story because for so long he did not truly realize that he was guilty of shooting a man.

The final scene of *The Stranger* shows the metamorphoses of Meursault from just a man to Meursault the hero of the absurd. In the jail cell scene when Meursault has had time to think his whole life over for quite some time, the process of individuation finally takes place. As theory shows, this last step in the journey of the hero demonstrates the achievement of autonomy. In Meursault's case, achieving autonomy means coming to peace with the reality of the absurd life of his period. In his last few words before the text ends, Meursault narrates this state of individuation through some final thoughts:

For the first time in a long time I thought about Maman. I felt as if I understood why at the end of her life she had taken a 'fiancé,' why she had played at beginning again. Even there, in that home where lives were fading out, evening was a kind of wistful respite. So close to death, Maman must have felt free then and ready to live it all again. Nobody, nobody had the right to cry over her. And I felt ready to live it all again too. As if that blind rage had washed me clean, rid me of hope; for the first time, in that night alive with signs and stars, I opened myself to the gentle indifference of the world. Finding it so much like myself—

so like a brother, really—I felt I had been happy and that I was happy again. For everything to be consummated, for me to feel less alone, I had only to wish that there be a large crowd of spectators the day of my execution and that they greet me with cries of hate. (Camus 122-123)

In these final few sentences Meursault accepts the role of the hero, as he comes to realize that he has learned so much in retrospect. He thinks of his mother and her actions toward the end of her life. In his cell, so close to his death, the quietness of the world and its illogical laws and morals become meaningless. Though for Meursault these rules had never made sense and he had always felt indifferent toward them, they had finally come to affect his life. So near his death he found this sensation of being so alone and the world so indifferent a comforting emotion that he could relate to. At this moment Meursault experiences the transformation of the hero as he accepts his destiny with courage and with open arms. The truth, that no divine being will have mercy on him and that there is only one life to live, fills him with happiness because he has lived without lies and without illusions. He even goes to the extent of saying that he will be happy only if at his death he is greeted by a crowd of hateful people who still do not comprehend the lives they live. He has learned to love and be soothed by the meaninglessness of his existence and would now feel ready to live his life over because he has finally learned to feel at home within himself, though he lives in a world that makes him feel like a stranger. His exclamation of both his readiness to live it all again and that he will be satisfied at his death only if people hate him solidifies the truth that Meursault has been transformed into the hero of the absurd because he has embraced the absurdity of the world and feels a brotherly affection for it.

Meursault is often referred to as a hero of the absurd and a disenchanted era in philosophical texts of absurdism and described as, "the only Christ we deserve, that he is condemned because he does not play the game and refuses to lie and that he is a man who, without any heroic attitude, dies for the truth" by Camus himself in a foreword for an American textbook version of *The Stranger* (Showalter 58–59). Therefore, the application of Jungian psychoanalysis using the hero archetype makes it possible to view *The Stranger* through a psychoanalytic lens rather than a purely philosophical lens, as is customary.

During his many years of studying the human psyche, Carl Gustav Jung tapped into many of the contemporary psychoanalytic concepts, some of which were also studied

by Sigmund Freud. Traditionally, the human psyche was divided between the conscious and the unconscious. Jung, unlike Freud, delved deeper into a level of the unconscious which he called the collective unconscious. Because of his propensity to apply myth to psychoanalysis, Jung identified this idea of the collective unconscious, "...through work with his patients and their dreams and fantasies. These dreams and fantasies had origins that could not be traced to the personal experiences of the individuals. Since these ideas were similar to religious and mythical themes, Jung referred to them as primordial images or archetypes" (Rad 15). Jung developed his archetypes through both the analysis of his neurotic patients and a deep and extensive self analysis.

The archetype of interest is the hero archetype. According to Stevens the, "Hero myths, in the Jungian view, reflect on the transpersonal plane the normal development of ego-consciousness and personality from infancy to adulthood. In addition to developing consciousness and differentiating between and from the parents, the *hero archetype* is about leaving home, overcoming fear and establishing personal autonomy in the world" (Stevens 85). The hero archetype explains the growth of an individual as he becomes a person through the many struggles and obstacles in his path toward independence. It can be said then that the hero in the myth is searching to find his place in the world, a place perhaps outside the archetypes of the collective unconscious. The journey of the hero ends once he reaches the point of autonomy, but, in a sense, the true feeling and realization of autonomy in a more metaphysical sense has to do with what Jung called the process of individuation. In Jungian psychoanalysis:

Individuation is the steady and step by step combination and unification of the self through the resolution of consecutive layers of psychological conflict. This is a process of self-realization, self-reflection, and of self-knowledge. Jung states that individuation is an 'ineluctable psychological necessity' that cannot be shunned; it is one with an aristocratic nature only accessible to those who are predisposed to achieve a higher point. This is exclusive, in a way, to those who are called to it from the beginning. (Rad 24)

A hero in a myth is predisposed to his journey and is called forth without his approval. In a sense, Jung explains that the process of individuation takes place in those individuals who are predisposed to be the outliers and find higher meaning in life. The

individual does not consciously need to know the journey is taking place, however. The process can simply take place if the hero is unconsciously willing to let the events unfold. Further exploration of the journey of the hero and how individuation is in fact part of the journey of the hero, a passage by Moreno on Jung's opinion on Nietzsche's *The Will to Power*, sheds some light on how optimally the process of individuation in the hero occurs when he decides to achieve the truth:

Nietzsche teaches us to attain optimism through pessimism; the tragic man says yes to even the sharpest sufferings, for he is strong, deified enough to do so. Consequently the will to power is the highest affirmation, born of fullness, a yea-saying without reserve to suffering, to guilt, to all that is questionable and even strange in existence itself. To comprehend this, courage and strength are needed, for precisely to the degree in which courage dares to thrust forward one approaches the truth. (Moreno 224)

When reaching individuation at the end of the journey the hero finally welcomes the absurdity of existence with courage and strength, which both Nietzsche and Camus agree makes the true hero.

What is the last step of the hero on his journey, then? It is to return to the realm of culture, to society and bring forth something productive, innovative and beneficial to humanity. All of this can take place only after individuation has taken place. The telling of Meursault's story as the hero of the absurd is the last step of his journey. Through the telling of his tale, Meursault and Camus, of course, for he sought to instill this message through this text, address their contemporary society. The reader personifies society and, in this way, though Meursault's literal journey ends as he awaits his death and it seems as though he was unable to return to the realm of culture, his lesson to the reader lies in the act of telling his story.

Camus compared Meursault to Sisyphus, the ancient Greek King who was sentenced by the gods to an eternity of pushing a boulder up a hill in order to learn his humanity. Just like Sisyphus, whose tale is retold again and again, Meursault will forever maintain his position as the hero of the absurd throughout history. His acceptance of the life we are all given and his coming to peace with it sets the example for all people of the world who may stumble upon his story.

The journey of the hero, as applied to reality, is in essence the journey of life. Throughout a lifetime, an individual will face constant struggle that he/she must overcome in order to ascend in a mental sense. Surely, there are many who do not have the courage or predisposition to face the truth of life, which is that life is difficult, and in a Camusesque sense life has no deeper significance than what can be experienced through the senses nor does our existence have any connection to a divine being. The state which Camus describes in his narrative and its connection to the journey of the hero merge to create an account of what reality is like. Reality is indifferent as Meursault explains and, if an individual can come to this realization somehow as he/she experiences the journey during which he/she may or may not become a hero (all of which depends on his/her willingness to accept the truth and even embrace it), it can leave him/her in a state of perpetual misery. The realization of the raw and fully natural state of our existence is a heavy burden to carry. Only those who are ready to accept the challenge and not fall into a pit of despair over the vast emptiness created by the coming of truth will become the heroes of our world, according to Camus.

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The Decline of Consciousness Along with the Aging Brain and the Self During Adulthood

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Brain activity and consciousness are neurological correlates that develop, mature, and then decline over the lifespan of human development. The brain collects an external perception within a scanning process that activates millions of cells in the cortex. Perceptions, inside the brain cells, appear to be snapshots of millions of fragments that the hypothalamus reassembles as a single picture every 12.5-thousands of a second (Blakeslee). The information, from the brainstem to the cortex, requires 500 milliseconds more to become available to the conscious mind. This electrical timing process slows down during adulthood. In other words, the brain activity of consciousness declines as part of the gradual physical deterioration of the aging process known as "senescence" (Berger 420). This brain activity correlates, theoretically, to the unique individual worldview and self-awareness. This paper attempts to survey the main philosophical and psychological approaches to consciousness and then explain how the interaction between the aging brain and consciousness during adulthood changes and modifies self-identification, environmental perception, and social referencing.

Consciousness, sometimes also referred to as soul, mind, or the nonphysical self, seems a vague concept that philosophers, psychologists, and neuroscientists have been examining extensively, incorporating interdisciplinary approaches. In philosophy of mind, dualism and monism have dominated the debate called "hard" problem. It relates to the philosophical examination of how brain processes generate consciousness (Carter 57). The foundation of the dualist theories, rooted in the belief that consciousness and corporeal things are two sorts of things, has its origin in Greek philosophical thinking and culminates in Descartes's *Meditations on First Philosophy*. During the middle of the fourth century B.C.E., Plato, in the *Phaedo*, maintains that the nonmaterial soul lived before and survives after the corporeal death. The soul animates a

body until the body decays and dies. Then, the death of the body releases the soul, which migrates to another body. Aristotle, on the other hand, who was the most important of Plato's students, explains that the soul is the noncorporeal essence of all living forms. The soul, he argues, requires a body to exist and perform activities (Lorenz). Intellectual activity, the only feature proper to humans that Aristotle considers, subsists after the individual's death. Descartes establishes the definite theoretical split between the physical materials—res extensa—and the immaterial—res cogitans in the mid 17th century. Nonphysical thinking, in the language of Cartesian dualism, consists of the self-sufficient stuff. In other words, the nonphysical *I* does not rely on the senses; on the contrary, it is immaterial, exact, and rational. The material stuff, then, comprises everything else (Freeman 6-10). On the other hand, monism argues that there is only one observable sort of physical thing. Monism has large and diverse theoretical forms, such as materialism, behaviorism, and eliminativism. Materialism, and its innumerable variants, is the main approach that has tested Cartesian dualism, arguing that the only certain thing for Descartes—the mind—is in fact open to question. In psychology, for example, behaviorism offers a radical counter-argument to Cartesian dualism. Behaviorists respond to the named "soft" problem, which relates the physical processes of the brain to a physical and measurable response (Carter 56). John Watson, the founder of behaviorism in the 1920s, argued that behavior is the access to mental states. According to Watson, behavior is observable, measurable, and recordable. These three observable conditions, which transformed psychology into science (Freeman 14; Koch 3-5), launch even more radical views—such as eliminativism—that deny consciousness entirely, as well as its psychological postulates.

The core conflict between dualism and materialism emerges with the Zombie thought experiment—an imaginative philosophical argument—which attempts to reason the nature of consciousness. The Zombie, according to the experiment, has the same physical human characteristics and behaves like humans, except it does not have consciousness. It follows that, if the Zombie is possible, dualism is necessarily viable because the Zombie is able to act as a human without the immaterial stuff of consciousness. If the Zombie is impossible, materialism is necessarily feasible because a proper physical construction generates consciousness in both the Zombie and humans (Carter 59). The Zombie entails an immaterial consciousness if it only performs human activities without any sort of emotion, understanding, and comprehension of these activities. According to the thought experiment, if Zombies fulfill their activities

like humans, but without any understanding, it implies that consciousness is the only stuff that makes humans human. When Descartes considers the double nature of physical and immaterial stuffs, he distinguishes two spheres that seem to arouse the fundamental question of how both diverse stuffs in their nature communicate with one another. Dennett argues, in his book *Sweet Dreams*, "it is a persistent cognitive illusion and nothing more" (17). It turns out to be problematic whether a zombie can be found at all. If this is the case, it is doubtful which being lacks *that* immaterial stuff, the observer who seems insecure in his own consciousness or the participant "zombie," who might claim that he possesses consciousness. In addition to the doubtful nature of the zombie, the existence of a being that acts as a human implies somehow the existence of consciousness. In the end, considering that the Zombie becomes impossible to exist, the nonexistence of consciousness does not follow as the necessary conclusion. The Zombie experiment seems not to solve the problem in itself. The heart of the conflict emerges when we try to establish, concretely or immaterially, how the neurological processes relate, or fail to relate, to the conscious mind.

Philosopher John Searle, in the book Minds, Brains and Science, attempts to give a new insight into the conflict between both dualism and materialism with the Chinese Room thought experiment and the formulation of biological naturalism, which correlates consciousness to the biological processes of the brain. Searle imagines an individual, who speaks and understands only English, in a room that contains baskets with Chinese symbols. This individual receives an English manual that explains how to organize the symbols syntactically. Outside the room, people write questions in Chinese; then, the questions are handed over to the person inside the room. Following the manual, the individual puts together the symbols and answers to every question. With practice, the answers simulate the ones of a native Chinese speaker (32). Like a computer program, the instructions in the manual determine the imitation of grammatical patterns; however, the simulation itself is deficient in semantics. In other words, the person in the room is incapable of duplicating meaningful and conceptual truths (37). Searle considers that "mental states are biological phenomena" (41) of the mind that, by themselves, raise consciousness to meaningful content. The semantics of consciousness, according to Searle, seem impossible to reproduce within syntactic manuals. Searle asserts, "Brains cause minds" (39) with the property of building semantic contents. Above all, he concludes, consciousness is part of the biological life—the same as growth, reproduction, and digestion—which is the proper feature of the brain (41). Although Searle believes that he arrives at a definition of consciousness separate from dualism and materialism, his biological naturalism is still considered by some philosophers within the dualistic tradition. In "The trouble with Searle's biological naturalism," Corcoran argues, "Searle offers us ... a version of dualism – a biological-property version" (314). The non-physical consciousness and physical conscious-mind maintain a causal relationship (Carter 69). Searle, to sum up, fails to correlate the neurological biological processes to the semantic contents of consciousness.

Neuroscientist Antonio Damasio, in Self Comes To Mind, analyzes the approach that consciousness, as a particular event of the organism, organizes the mind's contents which result from the experience and motivation of these contents (10). Damasio, like Searle, looks at consciousness as subjective mind. However, going a step further to integrate consciousness with the physical, Damasio endeavors to prove the neurological processes that build subjectivity. Even though it does not seem an advance in the discussion between dualism and materialism at first glance, Damasio achieves the location of the neurological consciousness in the brain stem, where the information from the whole body becomes complete. It happens over the level of the midpons. In the midpons, the trigeminal nerve enters the brain stem and then it gives the information to the upper sector of the body (260). In The Human Brain Book, Carter, on the other hand, considers that the location of conscious activity occurs on the cortex, mainly in the frontal lobes, which become conscious 500 milliseconds after the stimulus prompts in the amygdala and thalamus (Carter et al. 178). Damasio disagrees, affirming, "the thalamus serves as a coordinator of cortical activities, a function that depends on the fact that several thalamic nuclei that talk to the cerebral cortex are in turn talked back to and that moment-to-moment recursive loops can be formed" (263). The cortex, he continues, maintains the state of wakefulness and selects what we attend to (264). Neuroscientists are making significant advances in modern imaging technology, which allow them to observe the brain during diverse experimental prompts and also during sicknesses. More experimentation and evidence are needed to understand how the neural processes create consciousness. In other words, the criticism to this neurological approach is that the location of consciousness by itself, if that were possible, seems not to respond to the understanding of what consciousness is because it only attempts to solve the functioning of the brain.

The nature of conscious feelings, or qualia, revives the possibility of dualistic interpretations. Behaviorists believe that the conflict disappears with the claim that

behavior is always purposeful and concrete. Damasio, for his part, proposes a model of consciousness resulting from evolution. There are, he continues, three kinds of self that consciousness generates: first, the proto-self or primordial feelings; second, the core-self and narrative, the images and some feelings; third, the autobiographical-self, which bases its pattern on the core self within its extended meanings, feelings, and thinking. Damasio finds that organisms have evolved into animals with brains. Some of them acquire forms of sentience early in the evolution (27). Other mammals share with humans the capability of memory, reason, and core self because of the complexity of their brains (28). Throughout *Self Comes to Mind*, Damasio demonstrates the close similarities between organisms, animals, and humans. It seems that the distinctive human function is the autobiographical self that we, almost illusorily, consider unique to humans. Before continuing with the autobiographical self, there is another important view that neuroscientists have explored.

Some neuroscientists claim that consciousness results from large neuronal processes of the working brain (Koch 10). What is inside the brain determines consciousness, without any subjective process (18). This view attempts to rebut the idea that consciousness is an epiphenomenon, a by-product of the brain. Scientists study the neuronal correlate of consciousness (NCC), which must be affected somehow by other neurons. The post-NCC activity, or when some sort of cycle concludes, influences other neurons. The processes, which go back and forth, have an impact on behavior (Koch 17-18). Neural correlates of consciousness consist of specific patterns of brain activity. Each particular experience leads to a peculiar pattern in the brain (Carter *et al.* 179). Some scientists believe that, if it is possible to establish NCC, the problem of consciousness can be solved. Some philosophers disagree with the belief that the NCC by itself might offer a definitive understanding of consciousness because it only addresses how the neural activity processes information inside the brain. This is called "soft" problem because it cannot explain consciousness as irreducible theory.

Neuroscientists have been studying which areas of the brain are activated after an external stimulus triggers neural activity. With that premise in mind, Benjamin Libet, in the 1970s, began an experiment about the time that it takes to decide to act after the presentation of a stimulus. Libet requested that student participants move their hands when they have the feeling of doing it. They were not able to see when the stimulus prompted the movement. The results gathered from EEG readings show, surprisingly, students moved their hands 500 milliseconds before they reported that

they voluntarily did it. Although the study is still somewhat controversial, "the essential conclusion [is] that the unconscious brain kicks off a movement and the conscious decision to make it is not a decision at all" (Carter 85). In other words, as Carter explains in her book *Exploring Consciousness*, the voluntary action appears after a wave-like activation triggers the cortex. The timing gap between both the reaction and the decision proves that consciousness is epiphenomenal. Briefly, consciousness seems a by-product of the neural processes (Carter 85), which might lead to more extremist theories, such as eliminativism, strongly supported by philosophers such as Daniel Dennett. Before exploring the meaning of eliminativism, the unconsciousness brain requires some explanation.

The unconscious memories of concepts, ideas, and perceptions have both mental processes and physical states. Prior to becoming conscious, concepts, ideas, and perceptions activate systematically the hippocampus and prefrontal cortex when the firing pattern begins. The neural firing pattern correlates to the physical linkage of neurons. The neurons create a web-like pattern of connections that preserve, store, and retrieve memories. The memories are activated during each mental process, whether a new perception triggers the neuronal activity or ideas recall old ones. The unconscious predicts necessary messages or information for connecting the conscious mind to the environment and the self-experience of mind. That prediction seems real because the unconscious continually stores new perceptions, ideas, and concepts, which keep their readiness and fill gaps for potential conscious usage (Carter 153-54). Again, how does the neural activity select which information it picks? The brain processes offer a simple answer. The unconscious follows the neural firing pattern which is likely useful at that moment. Yet the process itself seems not to explain what the unconscious is. Psychology offers two main possible theoretical explanations in answering it. Freud understood, following Damasio's words, "the immense scope and power of mind processes going on under the sea level of consciousness" (189). Freud, however, associated the extent of the unconscious with sexual and aggressive urges only. Even so, we still might acknowledge that Freud observed the active domain that the unconscious exerts on our conscious experience.

Carl Gustav Jung, on the other hand, created a completely new dimension for the unconscious when he conceived the unconscious to be the collective memory of past myths, religious power, philosophical experience, and spiritual healing. The unconscious acts on the individual psyche like an individual and distinctive event; however, the psyche extends its origins to the ancestral memory of cultures and myths in the mind. As Corbett explain in her article "The Holy Grail of the Unconscious," the most widespread understanding of Jung's thinking is "his belief that humanity shares a pool of ancient wisdom that he called the collective unconscious and the idea that personalities have both male and female components (animus and anima)" (41). The visual representation of the collective unconsciousness appears in Jung's Red Book, an elusive and mythical work that contains the deepest philosophical and private Jungian thinking, which was exhibited in the Rubin Museum of Art in 2009-10. The folio 79 of the Red Book, elaborated by Jung between 1914 and 1930, illustrates the forceful Jungian bond between the inner psyche and the collective knowledge that inhabits the unconscious. In the folio, the depiction of a mosaic represents four circles surrounded by three more circles in vivid bluish, reddish, and greenish hues. Circles become part of the ancestral repository of knowledge that Jung considered foundational of being human. They relate to the ancient seven planets, the signs of the Zodiac, the days of the week, and womanhood. Jung depicts "an ocean that could be fished for enlightenment and healing" (Corbett 36). Today, we would rather explain that our genetic makeup and the phenotype carry the information over from our evolutional past. It still seems we believe that some part of our past civilization persists in us. Even the magic knowledge continues in some cultures and traditions, which also enable us to build scientific knowledge.

Determination to explain the unconscious scientifically comes from Carter, who, in *The Human Brain Book*, explains that a cycle of neural activity, which registers one event, comes into "packets of time" (186). The overlapping of events forces the brain to recall the most recent. It takes, on average, half a second for the unconscious mind to process incoming sensory stimuli into conscious perceptions. Yet we are not aware of this time lag—you think you see things move as they move, and when you stub your toe you get the impression of knowing about it right away. This illusion of immediacy is created by an ingenious mechanism, which backdates conscious perceptions to the time when the stimulus first entered the brain (187).

The fast timing of the brain seems not to be grasped. It regulates our conscious activities. This is precisely the point that the philosopher Daniel Dennett evaluates. Dennett, who rooted his thinking in the behaviorist tradition, argues that consciousness is an illusion constructed socially (Koch 7). The claims that arise from our experience, i.e. pain, do not exist because, as Dennett asserts, the material world is all that

is (Carter 61). Following Carter, the brain takes as much information as available to create a realistic internal model (154). To Dennett, the brain maintains a multipledrafts model of events in space and time, which in the individual brain comes out during the sentient state (Freeman 316). In Consciousness Explained, Dennett asserts, "all varieties of perception—indeed, all varieties of thought or mental activity—are accomplished in the brain by parallel, multitrack processes of interpretation and elaboration of sensory inputs" (111). The recognition of some external perception, Dennett concludes, follows from the event of an initial perceptual instance, prior to any conscious event. Dennett, then, denies consciousness as a separate or immaterial entity, which may be understood as eliminativism. More clearly, eliminativism by definition consists of the negation of the existence of some sort of things. To Dennett, consciousness is nothing else than a natural phenomenon "exquisitely ingenious in its operation, but not miraculous or even, in the end, mysterious" (56). It is possible to establish that Dennett considers that the mental subjective experience emerges as social constructions and consciousness becomes part of that structure. Human civilization has an extent background of subjectivity as part of its self-construction. Art, myths, religions, love and hate, sorrow and happiness shape that building. Neuroscientist Damasio, on the other hand, is taking a huge intellectual step towards the unification of consciousness and the subjective autobiographical self. What remains is the need to figure out how the neuronal processes work together and build that autobiographical self.

The elusive character of consciousness leads us to try to elaborate the tentative definition, at least for now, that it consists of neuronal processes, unconscious and more sentient, that recall our biographical experience as civilization and individuals while we are awake, alert, drowsy, or able to give some account of ourselves. The definition does not continue with the Platonic and Aristotelian thinking because it suggests that consciousness relates to brain activity and experience of one individual in the material world only. There is no implication of remembrance from previous past lives or beyond material life. The unconscious conforms part of the first person experience, which appears to follow specific neural patterns. Mainly after the Freudian and Jungian theories of unconsciousness, the temptation to link it with the Cartesian non-physical *I* emerges as a simplistic path. Certainly, and in addition to the unconscious, the biographical experience as society and individual gives some suspicion of the non-material realm. Neuroscientists have traced the firing path that neurons take; however, it cannot answer by itself, as it was mentioned earlier, the meaning of unconscious and

consciousness. Here, the concept of consciousness intends to argue which processes causes consciousness. Dennett might agree in part with the definition. He would recall to the biographical experience as part of the social- and self-construction. However, the notion of consciousness is quite far from being illusory. The idea that neuronal processes are part of the biological phenomena, as civilization and individuals, continues with what Searle concludes, "Consciousness, intentionality, subjectivity and mental causation are all part of our biological life history" (Searle 41). The biographical experience of the concept comes after Damasio's model of consciousness. At the end, the so called "hard" problem of consciousness might destroy the notion formulated earlier. Some philosophers argue that unconscious and neuronal processes deny the nonreductive character of consciousness. The definition of consciousness, on the one hand, intends to introduce the neural causal means of consciousness. In other words, unconscious and neural processes become causes of consciousness.

Precisely, it is the account of our biographical self that deteriorates with the aging of the brain. Carter, in *The Human Brain Book*, argues that brain usage after the age 50 has not evolved because it is a new phenomenon (206). This is an intriguing claim because the average life expectancy has increased up to the generation of the Baby Boomers; however, it might need both further research and more diachronic studies in nonhuman and human species. West, on other hand, suggests that neural aging relates to a decrease in the size of neurons, but not a loss in the number of neurons:

Shrinkage of cells in the frontal cortex appears to begin earlier and be more severe than in other areas. Haug and Eggers reported that, below the age of 45, there was little reduction in cell size in any area of the cortex measured. Within the 5th to 7th decades of life, shrinkage of cortical neurons appeared to begin and was greater in the extrapyramidal cells of the prefrontal cortex (22%) than in the parietal, orbital prefrontal, or primary visual cortex (6%, 3%, and 9%, respectively). Above the age of 65, the reduction in cell size became more pronounced in all regions and continued to dominate in the prefrontal region (43%, 11%, 25%, and 13%, in the extrapyramidal prefrontal, parietal, orbital prefrontal, and primary visual regions, respectively). (West 273)

The downsizing of the neuron relates to the lessening in the number of synapses and

dendritic processes. Neurological advances cannot yet establish whether the decrease in synapses produces the fading-out of dendrites or the shrinkage of dendrites leads to the decline in synapses (West 273). It seems that the processes of the brain change begin more clearly in the 50s. Still, mid-adults might be able to create art, write complex scholarly papers, cook a sophisticated feast, and so on. However, there is a gradual deterioration around the 50s. In the article "Brutal Truths About the Aging Brain," Robert Epstein, who worked under Skinner, introduces the question "How does the deterioration of the brain affect memory, attention, processing speed, and socialization?" Epstein counted the words that Skinner delivered during three speeches in 1962, 1977, and 1990. The wording fell from 148 to 137 to 106 words per minute. Epstein concludes that the memory and analytical skills dropped considerably within senescence (48-50). West might explain the aging deterioration that Skinner and all humans experience as a "reduction in cellular volume that may be due to a decrease in the number of synapses, the atrophy of dendritic processes, or a reduction in cellular mechanisms that support the synthesis and transmission of various neurotransmitters" (West 275). We do not know why homeostasis does not maintain the state of equilibrium at some point of aging because the deterioration of the brain and physical body as a whole gradually stop the natural balance that it formerly had. With it, consciousness, as the autobiographical self, which has been the distinctive characteristic in the individual, deteriorates.

Consciousness, at the end, suffers the same decay that the individual does because the body decomposes at some point. Individual consciousness persists as biographical experience in social groups that, in turn, becomes the experience of the group as a whole. More scientific evidence is needed to prove that it is the physical neural functioning of the brain which has the capability to create art, literature, philosophy, science, love, and so on. Above all, it is possible to conclude that, in the depths of the brain, stands this biographical experience which humanity has evolved and elaborated as its distinctive mark of civilization. Whether consciousness keeps evolving or not remains to be seen.

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