TOPIC

WORLD STUDIES: ENGLISH AND BIOLOGY

RESEARCH QUESTION

HOW DO THE LITERARY WORKS OF FOUR NOBEL LAUREATE AUTHORS ILLUMINATE THE BIOLOGY OF DISEASE AND THE NEEDS OF PATIENTS?

APPROACH

An investigation of the literary representation of disease in novels and poetry from four Nobel-Prize-winning authors from South Africa and the United States. Is their representation of disease primarily a literary trope used to reflect on larger illnesses of the “body politic” or are the authors’ representations of disease sufficiently accurate that they have credible educational value for the reading public and have teachable value for medical students needing to learn a more patient-centered approach to clinical practice?

BY

SETHLY M. DAVIS
IB NUMBER: 000056016

J.M. Coetzee, Nadine Gordimer, Joseph Brodsky, Toni Morrison
# TABLE OF CONTENTS

**ABSTRACT** — P. 3

**Epigraphs** — P. 4

**Introduction** — P. 5

1. **Nadine Gordimer** — *Get a Life*, 2005
   - *The Biology of Thyroid Cancer* — P. 6
   - *Gordimer’s Representation of Thyroid Cancer* — P. 7
   - *Thyroid Cancer and the Life of the Patient* — P. 7

2. **J.M. Coetzee** — *Age of Iron*, 1990
   - *The Biology of the Terminal Metastatic Breast Cancer* — P. 9
   - *Coetzee’s Representation of Metastatic Breast Cancer* — P. 10
   - *Metastatic Breast Cancer and the Life of the Patient* — P. 10

   - *The Biology of Alzheimer’s Disease* — P. 12
   - *Brodsky’s Representation of Alzheimer’s Disease* — P. 13
   - *Alzheimer’s Disease and the Life of the Patient* — P. 13

4. **Toni Morrison** — *Beloved*, 1987
   - *The Biology of Borderline Personality Disorder & Transference* — P. 15
   - *Morrison’s Representation of Borderline Personality Disorder & Transference* — P. 16
   - *Borderline Personality Disorder & Transference and the Life of the Patient* — P. 17

**Conclusion: Literary Representations of Disease & Their Medical Authority** — P. 16

**Appendices** — P. 17

**Photograph and Illustration Credits** — P. 20

**Endnotes** — P. 22

**Bibliography** — P. 28
ABSTRACT

In this research essay I analyzed how four winners of the Nobel Prize for Literature represent disease in three novels, Gordimer’s *Get a Life*, Coetzee’s *Age of Iron* and Morrison’s *Beloved*, and one poem, Brodsky’s “Constancy.” My research question asked how well these two South African and two American authors identify and describe disease — and in so doing questioned how well their works could educate the general public about disease and could educate medical students about the best ways to treat those who are suffering.

In order to include both local and global considerations I selected works from my country of residence: United States of America, and from South Africa. I was intrigued by the juxtaposition of a first world and a third world country and the inherent differences in their healthcare systems. These two countries are alike in their complexities and I explored further similarities through my research.

I began by researching the specific diseases mentioned in the four works. I first identified the diseases from the authors’ specific naming of them or their articulation of the diseases’ symptoms, and confirmed those diagnoses with research in medical journal articles. I then sifted through the novels and poem for the authors’ use of literary tropes, using close reading supplemented by word-identification software embedded in Google books.

My examination of the works supported the conclusion that even when stylistically they were more expressionistic than realistic, the works compellingly documented the physical and emotional effects of disease. While the authors may have used disease as a literary device to reflect on larger societal ills, to make that analogy compelling, all four authors accurately and evocatively portrayed physical and psychological experiences of disease.

With that realization I concluded that the documentation of disease rendered each work capable of educating general audiences about possible medical presentations of disease and capable too of teaching medical audiences to consider the whole person in their diagnoses.
SUSAN SONTAG • ILLNESS AS METAPHOR
1978

“Illness is the night-side of life, a more onerous citizenship. Everyone who is born holds dual citizenship, in the kingdom of the well and in the kingdom of the sick. Although we all prefer to use only the good passport, sooner or later each of us is obliged, at least for a spell, to identify ourselves as citizens of that other place.”

ELAINE SCARRY • THE BODY IN PAIN
1985

“...first, [there is] the difficulty of expressing physical pain; second, [there is] the political and perceptual complications that arise as a result of that difficulty; and third, [there is] the nature of both material and verbal expressibility or, more simply, the nature of human creation.... Physical pain has no voice, but when it at last finds a voice, it begins to tell a story, and the story that it tells is about the inseparability of these three subjects, their embeddedness in one another.”

CHARLES ROSENBERG • FRAMING DISEASE
1992

“‘Disease’ is an elusive entity. It is not simply a less than optimum physiological state.... In some ways disease does not exist until we have agreed that it does — by perceiving, naming, and responding to it.”
INTRODUCTION

When you come into my hospital room, you need to know the facts of my life that there is information not contained in my hospital chart that I am 40 years married, with four children and four grandchildren... that I love earthy sensuous life, beauty, travel, eating, drinking J&B scotch, the theater, opera, the Chicago Symphony, movies, all kinds, water skiing, tennis, running, walking, camping... that I am chronically ill, and am seeking healing, not cure.”


This essay originated in my personal observations over several years of internships in hospitals on three continents. I have noted that doctors do not always treat their “patients”; sometimes they just treat the “diseases.”

Today, sufferers look for instant medical answers from sites such as WebMD, and doctors diagnose patients with digital apps on iPads and iPhones. Yet there remains a need for both patients and doctors to more completely understand disease by understanding the human circumstances of disease.

Medical schools have begun to recognize this and to shift their curricula to emphasize a more patient-centered approach to practicing medicine. To do so, they have started to augment their standard program with courses that teach novels and poetry and that encourage students to explore the relevance of literature to their own clinical experiences. Faculty have noted “that exposure to literature and writing during residency training can influence how young doctors approach their clinical work,” as New York Times columnist and surgeon Dr. Pauline Chen has written. “Doctors exposed to literary works were more willing to adopt another person’s perspective, even after as few as three or four one-hour workshops.” The need to improve patient treatment is an issue worldwide, but without further appreciation of that need — taking into account both the biological and the humanitarian aspects — cannot be rectified.

This essay, based on research in medical journals and close textual reading of three novels and one poem by four Nobel Laureates, argues that literature can powerfully represent the physical and emotional impact of disease on individuals — even when, as in the case with the four American and South African works that I considered, disease is also used as a literary device to underscore social and political repercussions of oppression, abandonment and dislocation.

By tracing in detail the presentation of disease in four literary works, this essay argues that literary portraits of disease can be sufficiently accurate to reliably educate lay audiences about possible clinical presentations of disease. It also argues that literature can be sufficiently compelling about the personal consequences of disease that it can credibly teach medical students of the need to consider the lives, not just the ailments of their patients.
NADINE GORDIMER — GET A LIFE

“Radiant. Literally radiant. But not giving off light as saints are shown with a halo. He radiates unseen danger to others from a destructive substance that has been directed to counter what was destroying him. Had him by the throat. Cancer of the thyroid gland.”

THE BIOLOGY OF THYROID CANCER

Cancer arises when a genetic mutation causes cells to divide uncontrollably in a specific part of the body. In Nadine Gordimer’s Get A Life, protagonist Paul Bannerman is a husband, father, son and ecologist in South Africa who develops papillary thyroid cancer (PTC).

The incidence of thyroid cancer internationally is relatively rare, representing 1-5 percent of all cancers in women and 2 percent in men. There are four main types of thyroid cancer, all with differing severities; papillary carcinoma is the most common and least dangerous variety representing greater than 85 percent of all thyroid cancer cases. Symptoms of thyroid cancer include hoarseness, coughing, difficulty swallowing, neck and throat pain, swollen neck lymph nodes and/or thyroid gland and a lump or nodule in the thyroid gland itself.

The initial treatment for PTC is the surgical removal of the thyroid gland (thyroidectomy) and, if necessary, the surrounding lymph nodes. Radiation therapy is often employed via either external beam radiation or the ingestion of radioactive iodine. If the patient requires additional measures, chemotherapy may be used but studies suggest that chemotherapy is only effective in a small percentage of patients. There is a good prognosis for PTC patients who seek prompt treatment: more than 90 percent are cured.

GORDIMER’S REPRESENTATION OF THYROID CANCER

When authors’ descriptions of diseases, symptoms and treatments are accurate enough, they can help general audiences understand the arcane biology of disease and navigate the physical and psychological consequences of disease. Accurate depictions of suffering characters can also serve to counsel medical students about the impact of disease on individuals and how to best treat the whole patient.

Nadine Gordimer is a South African writer and political activist who received the Nobel Prize in Literature in 1991. In Get A Life, Gordimer provided her audience with a clear definition and description of the disease that afflicts the novel’s main character, Paul Bannerman. Her readers immediately learn on the very first page — even before they learn Paul’s name — that he suffers from “cancer of the thyroid gland.”
Using the vehicle of Paul’s morbid curiosity, Gordimer provides details of his “papillary carcinoma” and its treatments.\textsuperscript{15} She accurately describes the risk factors and treatment of the disease, for example, noting that thyroid cancer is “more frequent in women and in both sexes more frequent in the young,” although she does misstate that papillary carcinoma is "the most serious form of thyroid cancer."\textsuperscript{16}

Gordimer seeks to make her explanations accessible to her audience by combining an informal register with a specialized medical vocabulary, as here: “…thyroidectomy’s the scientific term,” and “…the radioactive iodine treatment the doctors had found, by mean of a scan, was necessary to what’s their word, ablate residual cancerous tissue.”\textsuperscript{17} The details of the medical treatment are sufficient to educate readers about thyroid cancer and remind medical practitioners of the impact of the treatments they prescribe: “If there is suspicion that after thyroidectomy some tissue remains, then radioactive iodine ablation must follow. This radioactive iodine treatment is dangerous to others who come in to contact with the individual who has received it.”\textsuperscript{18} (see Figure 1 appendix\textsuperscript{19})

THYROID CANCER AND THE LIFE OF THE PATIENT

Diseases have long been used as literary devices. In \textit{Hamlet}, for example, Shakespeare gives these words to Claudius: “Diseases desperate grown / By desperate appliance are relieved, / Or not at all.”\textsuperscript{20} Shakespeare uses the language of illness and the prescriptions for its treatment to emphasize the king’s defense that desperate times call for desperate measures. Other authors through the years have afflicted their characters with disease to provide metaphorical insights. In \textit{Get a Life}, Nadine Gordimer uses thyroid cancer to provide a larger allegorical structure for her commentary on South Africa post-apartheid. The particulars of Paul’s radioactive iodine treatment drives the plot of the story by isolating Paul from his wife and child, yet also serves as metaphor. A \textit{New York Times} reviewer wrote: “Nadine Gordimer has often written about sickness, but it has been the sickness of a society, South Africa, under and after apartheid.”\textsuperscript{21}

\textit{Get A Life} centers on how Paul copes not just with his cancer, but with the fact that he poses a threat to others for the “about sixteen days” he is radioactive.\textsuperscript{22} Gordimer makes explicit the ironies between the positive, metaphorical connotations of being ‘radiant’ and the negative implications of being “radioactive.” Paul establishes how physically damaged and emotionally alienated he feels by describing himself as the “pestilent one, the leper. The new leper.”\textsuperscript{23} He is to his dismay holding the passport to the “kingdom of the sick,” in Susan Sontag’s words, confirming his “new” identity as someone different than he used to be.\textsuperscript{24}

Paul’s retreat into self-critical metaphors — on another occasion he calls himself an “Untouchable”\textsuperscript{25} — allows readers to more fully understand PTC, because not only are the clinical aspects of Paul’s condition made explicit in his metaphor-laced dialogue, but so too is his wrenching emotional state. To be fully healed, Paul needs to be integrated back into his family — a circumstance that medical students would do well to understand.
J.M. COETZEE — AGE OF IRON

“I had a sudden attack. An attack: it was just that: the pain hurling itself upon me like a dog, sinking its teeth into my back.”

THE BIOLOGY OF TERMINAL METASTATIC BREAST CANCER

Terminal Metastatic Breast Cancer occurs when tumor cells from breast cancer metastasize, or spread, in the body. In J.M. Coetzee’s Age of Iron, classics professor Mrs. Curren, the heroine of the novel, is dying of metastatic breast cancer; her cancer has spread to her bones.

For breast cancer patients the most common sites for metastasized tumorous growths to appear are the lungs, bone and liver. For women diagnosed with early breast cancer, 18-20 percent relapse within 10 years, and of those, the cancer will metastasize to the bone about 70 percent of the time. (see Figure 2 appendix)

Most metastatic cancers cannot be cured and the treatments that do exist try to slow the proliferation of cancerous cells in an attempt to prolong the patient’s life. Treatments for metastatic cancers, which include surgery, radiation, chemotherapy, and hormonal, biological, targeted and local therapies, are also intended to halt abnormal bone loss and offer pain relief. The severity of pain depends on the size and location of the tumors and the presence of accompanying symptoms such as bone fractures in the arms, legs, ribs, pelvis and spine.

COETZEE’S REPRESENTATION OF METASTATIC BREAST CANCER

Apartheid is a scourge in J.M Coetzee’s seventh novel, Age of Iron, published in 1990. Coetzee, a South African author and the winner of the Nobel Prize for Literature in 2003, parallels the aggressive cancer of his protagonist, Mrs. Curren, with the parasitic cruelty of apartheid. The majority of cancer patient deaths are due to the metastasis that has occurred — a rather perfect metaphor not lost on Coetzee in his detailing of what awaits the whites of South Africa in The Age of Iron.

From the start of the novel Mrs. Curren is conscious she is dying: “the news was not good, but it was mine, for me, mine only, not to be refused.” Over the course of the novel, details become clearer: her incurable disease is specified as cancer that “had made its way into the bone,” she has had a mastectomy, and her first prescription, Diconal, is succeeded by Tylox, a second, stronger prescription.

Unlike Gordimer who writes little about the pain of cancer, Coetzee emphasizes Mrs. Current’s pain and fear, creating a fuller portrait of this terminal illness:
To have fallen pregnant with these growths, these cold, obscene swellings; to have carried and carried this brood beyond any natural term, unable to bear them, unable to sate their hunger: children inside me eating more every day, not growing but bloating, toothed, clawed, forever cold and ravenous.\textsuperscript{36}

Coetzee accurately and evocatively presents Mrs. Curren’s breast cancer, giving readers insights into the physical complaints arising in end-stage cancers — and patients’ possible emotional reactions.

\section*{Metastatic Breast Cancer and the Life of the Patient}

In \textit{Age of Iron} Coetzee describes the physical and emotional suffering caused by the paired terminal illnesses of cancer and apartheid. He parallels the devastating effects of cancer on the body with the devastating effects of apartheid on South Africa. Like Toni Morrison’s novels, Coetzee’s books “favor…allegorical narratives that focus on life under regimes capable of endless brutality,” as Lawrence Thornton wrote in a \textit{New York Times} review.\textsuperscript{37}

Mrs. Curren’s physical and emotional upheavals mirror the barely suppressed upheavals coming in the country: “Monstrous growths, misbirths: a sign that one is beyond one’s term. This country too: time for fire, time for an end, time for what grows out of ash to grow.”\textsuperscript{38}

For Coetzee, apartheid has “afflicted” South Africa, just as Mrs. Curren’s tumors have “afflicted” her. The twisted ideals that the authorities used to govern have destroyed the body politic from within, as cancer does, as demonstrated by Mrs. Curren:

\begin{quote}
“You know I am sick,” says Mrs. Curren. “Do you know what is wrong with me? I have cancer. I have cancer from the accumulation of shame I have endured in my life. That is how cancer comes about: from self-loathing the body turns malignant and begins to eat away at itself.”\textsuperscript{39}
\end{quote}

Mrs. Curren’s shame comes from her recognition that in her life she neither helped those in need nor assuaged their pain.

Coetzee unflinchingly examines Mrs. Curren’s physical and emotional distress and traces her growth in understanding her own and her society’s cancer. “Cancer,” in \textit{Age of Iron}, is an illness, not just a “disease.” Once a “cancer” has metastasized, no surgery can cut deep enough or extensively enough to save the patient. All that is possible is for the doctors to evaluate what palliative treatment is possible and for the patient to come to terms with what is happening. That’s an important lesson for medical students to learn: that a diagnosis of a terminal disease is not just a medical notation of time left to live, but is a trigger for patients to reflect on what they have and have not accomplished in their lives.
JOSEPH BRODSKY — “CONSTANCY”

“...the grey matter./ Ah, shrunken to the size of a brain-cell parlor / with a lampshade...”

THE BIOLOGY OF ALZHEIMER’S DISEASE

Alzheimer’s disease causes the degeneration and death of neurons (nerve cells) in the brain, resulting in fewer synaptic connections and a loss of mental function. In Joseph Brodsky’s “Constancy,” a poem collected in So Forth, the narrator surveys the cognitive and emotional costs of Alzheimer’s disease.

Alzheimer’s interferes in the brain’s inter-cell communications because of the formation of beta-amyloid plaques and neurofibrillary tangles, visible with magnetic resonance imaging (MRIs) and positron emission tomography (PET) technology. (see Figure 3 appendix) Over time, specific regions of the brain progressively atrophy as individuals progress from mild impairment to Alzheimer's disease.

Alzheimer’s disease presents two sets of symptoms: cognitive and psychiatric. Cognitive symptoms make up what are known as the “4 A’s of Alzheimer’s,” amnesia, agnosia, aphasia and apraxia — loss of memory, interpretation of the five senses, speech or the ability to understand speech, and the mental ability to perform tasks or movements. Psychiatric symptoms are the personality changes, depression and psychotic behaviors that are the result of the deterioration of brain cells. There is no treatment for Alzheimer’s beyond anodyne therapies that address the cognitive symptoms and antipsychotic medications that target the psychiatric symptoms. Death often occurs due to complications that arise as a result of a co-existing disease, the most common of which is pneumonia.

BRODSKY’S REPRESENTATION OF ALZHEIMER’S DISEASE

Alzheimer’s ravages both cells and memories in “Constancy,” by Brodsky, the winner of the Nobel Prize for Literature in 1987. Brodsky completed So Forth, a collection of 64 poems, shortly before his death in 1996 at age 55 from a heart attack.

Brodsky describes Alzheimer’s using scientific terms and images. He writes of “gray matter,” a specific type of brain tissue that is darker in color and made up of neurons (nerve cells), and of “gray cell[s],” another term for the same, and he references “hemispheres,” a term in medicine that denotes the two halves of the brain.
As Alzheimer’s progresses the brain literally begins to shrink, as Brodsky alludes when he writes that the grey matter has “shrunken to the size of a brain-cell parlor.” The idea of loss, both literal and figurative, pervades the poem, and follows, scientifically the loss of function in the left, usually dominant, hemisphere of the brain that has more grey matter, and is host to the major areas of the brain involved in language skills. Alzheimer’s disease strips away “your” understanding of the world, Brodsky explains. His poignant specificity of detail movingly communicates the impact of Alzheimer’s to readers, when he writes, for example, that the recognition of even “the furniture” or “the silhouette in a yellow dress” are erased “in the end—from your very self.”

**ALZHEIMER’S DISEASE AND THE LIFE OF THE PATIENT**

According to *Publishers’ Weekly* the poems in *So Forth* are “so pervaded with thoughts of exile and mortality as to sometimes verge on outright despair.” Brodsky, born in the Soviet Union, came to live in the United States after being expelled from Russia in 1972. In “Constancy” Brodsky uses the metaphor of literal exile to mark the figurative exile of Alzheimer’s victims from all they have known:

*To die, to abandon a family, to go away for good,*
*to change hemispheres, to let new ovals*
*be painted into the square— the more*
*volubly will the gray cell insist*
*on its actual measurements, demanding*
*daily sacrifice from the new locale…*

Travelers leaving the Soviet Union (“a kremlin”) to flee to the United States (“Manhattan”) change geographic hemispheres. Alzheimer’s patients also “change” hemispheres, as can be tracked in successive brain imaging where technicians read the “new ovals…painted into the square” — the ovoid scans of the brain captured on square sheets of film. (see Figure 3 above) “The gray cell insist on / its actual measurements” recognizes that cognitive impairment accompanies the lost of neurons, “demanding daily sacrifice from the new locale.”

“Constancy’s” final imagery makes vivid the cognitive endgame of Alzheimer’s:

*The slack vertebrae of a train*
*thundering in the darkness, past*
*the mussel shells, tightly shut for the night, with their*
*spineless, soggy, pearl-shrouding contents.*

Brodsky’s train metaphor references a vertebrae and brain stem that terminates with the skull, a dark and empty place now that the disease has run its course. The brain has shut for the “night.” Little is left in the brain save some “soggy” contents; there is no personality that remains. Brodsky devastatingly captures the annihilation of Alzheimer’s disease, where at the final stages the patient is bedridden, unable to process what is happening, often without language.
“Constancy” is not a roadmap to educate an audience about the science of Alzheimer’s, but its poetic evocation of the impact of the disease offers readers emotional access to Alzheimer’s sequential horrors. So too does “Constancy” offer to medical students a reminder that the “shell” of an Alzheimer’s patient who is being treated was once far more; the person inside that shell is in unwilling exile.
TONI MORRISON — BELOVED

“Sethe was worn down, speckled, dying, spinning, changing shapes and generally bedeviled.”

THE BIOLOGY OF BORDERLINE PERSONALITY DISORDER & TRANSFERENCE

Borderline Personality Disorder is a mental illness in which the patients have “long-term patterns of unstable or turbulent emotions, such as feelings about themselves and others.” In Toni Morrison’s graphic yet fantastical novel Beloved, Sethe, an escaped slave and former mother of four, mentally and emotionally struggles through personal abuse.

The exact cause of borderline personality disorder (BPD) is unknown but among the risk factors are sexual abuse and abandonment. BPD also commonly co-occurs with post-traumatic stress disorder (PTSD). Symptoms of BPD and PTSD include: efforts to avoid real or imagined abandonment, a pattern of unstable and intense interpersonal relationships, identity disturbance, severe dissociative symptoms, flashbacks (including reliving the traumatic event for minutes or even days at a time), chronic feelings of emptiness, intense anger, emotional numbing, hopelessness about the future. (see Figure 4 appendix)

Treatment typically consists of different forms of talk therapy, and medications can be prescribed to help regulate mood swings and depression. The prognosis of the patient depends on the severity of the disease and whether or not the patient has accepted the need for help.

Were doctors to be brought in to diagnose Sethe they might also note a case of “transference” between Sethe and Beloved. Transference is the “[unconscious] transfer of feelings from the past to someone in the present,” often but not always a therapist. Contributing factors to transference are feelings of need and dependency, as well as personality disorders such as BPD. Treatments for transference also take the form of talk therapies, but alleviation of the symptoms typically only occurs when the originating patient recognizes his or her feelings, and when the two individuals (the patient and the object of transference) define boundaries in their relationship.

MORRISON’S REPRESENTATION OF BORDERLINE PERSONALITY DISORDER & TRANSFERENCE

As outlined above, Nadine Gordimer and J.M. Coetzee named and described the cancers suffered by their fictional protagonists, and even poet Joseph Brodsky carefully, if expressionistically, detailed the symptoms of Alzheimer’s in his poem “Constancy.” By contrast, American novelist
Toni Morrison, who won the Nobel Prize for Literature in 1993 six years after winning the Pulitzer Prize for *Beloved*, neither named a mental health illness suffered by the main character, Sethe, nor took care to articulate Sethe’s symptoms in a way that decisively argued for a medical cause.

*Beloved* is a work of magical realism, yet as is evident from others of Morrison’s novels as well as those of similar authors such as Gabriel Garcia Marquez, such works are called so precisely because they ground their “magic” in “realism.” Sethe’s supernatural interactions with the character Beloved resonate so deeply with general audiences in part because it has become well-known (if not well-understood) that extraordinary abuse and oppression cause severe psychological repercussions.

Known risk factors of sexual abuse and abandonment associated with BPD match Morrison’s description of Sethe’s history.58 Morrison horrifyingly describes Sethe’s rape and torture at the hands of Schoolteacher and his nephews and her repeated “abandonment”: by her mother, by her husband, by Baby Suggs, by her two sons, and most definitively by humanity for allowing slavery and the rending apart of families. Sethe is wracked by the kinds of “unstable and turbulent emotions”59 indicative of BPD and PTSD: she struggles with severe dissociative symptoms, feelings of emptiness, intense anger, and hopelessness about the future: “Her brain was not interested in the future. Loaded with the past and hungry for more, it left her no room to imagine, let alone plan for, the next day.”60

In the magically realistic world of the novel, Sethe welcomes into her home a young woman who is the reincarnation of her murdered baby and projects on Beloved her memories of her slain infant: “the girl’s breath was exactly like new milk.”61 To a general audience, Sethe’s relationship with the enigmatic Beloved suggests how symptoms of BPD and transference could present.

**Borderline Personality Disorder & Transference and the Life of the Patient**

In a 1989 interview, Morrison said that she wrote *Beloved* to commemorate slaves and their history.62 In the world she creates, mental disorders are the inevitable consequence of slavery:

> Whitepeople believed that whatever the manners, under every dark skin was a jungle. Swift unnavigable waters, swinging screaming baboons, sleeping snakes, red gums ready for their sweet white blood. In a way…they were right…. But it wasn’t the jungle blacks brought with them to this place…. It was the jungle white folks planted in them.63

*Beloved* is a story about how blacks emotionally navigated the institution of American slavery. Many slaves survived, but like Paul D, Beloved and Sethe, they survived emotionally fragile and physically damaged: “The trembling was fixed by the time he knew it was there,” Morrison writes about Paul D. “The further south they led him the more his blood, frozen like an ice pond for twenty years, began thawing, breaking into pieces that, once melted, had no choice but to
swirl and eddy.”64 Another example is when “Beloved looked at the tooth and thought, This is it. Next would be her arm, her hand, a toe. Pieces of her would drop maybe one at a time, maybe all at once… Among the things she could not remember was when she first knew that she could wake up any day and find herself in pieces.”65 Finally, “If [Paul D] bathes her in sections,” wonders Sethe at the end of the book, “will the parts hold?”66

These “identity crises,” these “long-term patterns of unstable or turbulent emotions, such as feelings about themselves and others,” are consistent with the National Institute of Health’s symptoms of BPD, PTSD and Transference. 67 Even if Morrison does not proffer formal medical diagnoses of her characters in Beloved, the novel serves to acquaint readers with the causes and the symptoms of a variety of unspecified mental health disorders.

In Beloved, Sethe’s past carrying forward drives present-day events — but it is less the past and present events themselves than the consequent psychological trauma of them that forms the core of the novel. It is that core that could be so valuable to medical students: Beloved could help them understand the kinds of shocks and abuse often at the root of such mental health diagnoses as BPD, PTSD and transference.
CONCLUSION:
LITERARY REPRESENTATIONS OF DISEASE & THEIR MEDICAL AUTHORITY

“We reveal ourselves in the metaphors we choose for depicting the cosmos in miniature.”
— Stephen Jay Gould, Harvard evolutionary biologist and historian of science

Sherwin B. Nuland, Clinical Professor of Surgery at Yale and National Book Award-winning author, said in a recent New York Times article: “There’s a big difference between what we call ‘disease’ and what we call ‘illness.’ A disease is a pathological entity; an illness is the effect of the disease on the patient’s entire way of life.”

Novels and poems tell stories about illness, and in those stories characters have diseases. This essay, based on literary and medical research, argues that contemporary authors of fiction and poetry use disease to call attention to the depredations of social and political forces.

Yet the four literary works considered here do more than analogize disease to the illnesses of society. These works of fiction and poetry serve to educate their audiences about the physical and emotional effects of cancer, dementia and psychiatric disorders. These same literary works also are capable of educating medical professionals about the human consequences of disease — about the need to not just treat the symptoms of a disease, but to consider the full person who presents with that disease.
APPENDICES

Figure 1
Whole-body scans of a patient with disseminated pulmonary metastases of papillary thyroid cancer successfully treated with four courses of radioiodine. Note how the patient overtime becomes less radioactive.
Figure 2
(A) A 68-year-old woman with invasive ductal breast carcinoma and known bony metastases. Arrows show several hypo-attenuating lesions in the liver.
(B) Eight months later after interval chemo-therapy, the liver has extensive ascites (asterisks) and a recanalized umbilical vein (arrow).

Figure 3
Brain scans of Alzheimer’s patients — note the “ovals” in the “squares.”
Figure 4
Left, the brain scan of a healthy patient, and right, the scan of a patient diagnosed with BPD. The scan shows activity in the bilateral anterior insula in response to a game related to perceived fairness. The graph on the left shows a correlation between activity in the bilateral anterior insula of the healthy patient, and that patient’s assessment of the game as fair. The graph on the right of the BPD patient shows no correlation. This suggests that BPD patients’ behavior may not be directly related to present stimuli.
PHOTOGRAPH AND ILLUSTRATION CREDITS

Title-page photograph credits


Medical images

- **Figure 2**: A 68-year-old woman with invasive ductal breast carcinoma and known bony metastases. Transverse contrast-enhanced CT shows several small hypoattenuating lesions (arrows) in the liver that were new since the prior study and which were considered suspicious for metastases. (B) Eight months later, after interval chemotherapy with multiple agents, the liver has become diffusely nodular with extensive ascites (asterisk) and a recanalized umbilical vein (arrow). Digital image. ScienceDirect.com. SciVerse, n.d. Web. 3 Sept. 2012. http://www.sciencedirect.com/science/article/pii/S0899707106002476.
Medical School Curricular Changes:


ENDNOTES


5 I have volunteered and/or interned in the following hospitals since 2010: in the Ear/Nose/Throat & General Surgery Ward, Georgetown University Hospital in Washington, D.C; in the Emergency Room at the American University of Beirut Medical Center (AUBMC) in Lebanon; in the Outpatient Center at Children’s National Medical Center in Washington D.C.; in the OB-GYN and oncology wards at the UniversitätätsSpital Zürich in Switzerland; in the laboratories at Walter Reed Army Institute of Research in Maryland, USA.

I also have written up some of my personal observations about doctors in my HuffingtonPost column. See here, for example: Davis, Sethly. “What a Teenage Hospital Volunteer Can Do That a Doctor Can’t.” Huffington Post, September 1, 2012. http://www.huffingtonpost.com/sethly-davis/what-a-teenage-hospital-v_b_1837657.html.


7 Harner, Katie. “Redefining Medicine With Apps and iPads.” The New York Times, October 8, 2012. As the article notes: “The proliferation of gadgets, apps and Web-based information has given clinicians — especially young ones like Dr. Rajkomar, who is 28 — a black bag of new tools: new ways to diagnose symptoms and treat patients, to obtain and share information, to think about what it means to be both a doctor and a patient. And it has created something of a generational divide. Older doctors admire, even envy, their young colleagues’ ease with new technology. But they worry that the human connections that lie at the core of medical practice are at risk of being lost.” http://www.nytimes.com/2012/10/09/science/redefining-medicine-with-apps-and-ipads-the-digital-doctor.html?ref=thedigitaldoctor


A recent U.S. and Canadian study evaluating medical education noted a general call to raise the social accountability of medicine, (Skochelak, Susan E. “A Decade of Reports Calling for Change in Medical Education: What Do They Say?” Academic Medicine 85 (September 2010): S26–S33.
The trend toward teaching a more “humanistic” curriculum with the goal towards making doctors more empathetic, has also taken root in South Africa. “Teaching of professionalism at the University of Pretoria,” wrote Dr. Marietjie van Rooyen, a faculty member at its medical school, “focuses on the humanistic attributes, which form an important part of patient consultations and teamwork.” (van Rooyen, Marietjie, and Ina Treadwell. "Pretoria Medical Students’ Perspectives on Assessable Attributes of Professionalism.” South African Family Practice 49, no. 4 (September 5, 2007): 17. http://www.safpj.co.za/index.php/safpj/article/view/629)


The same article quoted Dr. Benjamin Kaplan. He said that residents managed patients differently afterwards: “They remembered to do things that I don’t think they would have otherwise done, like always talking to the family, gently touching patients, and continually explaining the course of treatment and what the doctors are thinking so patients know.”


19 Reiners, Christoph, Johannes Biko, Evgueni P Demidchik, Yuri E Demidchik, and Valentina M Drozd. “Results of Radioactive Iodine Treatment in Children from Belarus with Advanced Stages of Thyroid
Shakespeare, William. *Hamlet*, Act 4, Scene 3. Print. Siddhartha Mukherjee, a cancer physician, for example, mused in his recent Pulitzer-Prize winning biography of cancer, *The Emperor of All Maladies*, about the varying uses of “cancer” in Solzhenitsyn’s great novel: “In Aleksandr Solzhenitsyn’s novel *Cancer Ward*, Pavel Nikolayevich Rusanov, a youthful Russian in his midforties, discovers that he has a tumor in his neck and is immediately whisked away in a cancer ward in some nameless hospital in the frigid north. The diagnosis of cancer — not the disease, but the mere stigma of its presence — becomes a death sentence for Rusanov. The illness strips him of his identity. It dresses him in a patient’s smock (a tragicomically cruel costume, no less blighting than a prisoner’s jumpsuit) and assumes absolute control of his actions. To be diagnosed with cancer, Rusanov discovers, is to enter a borderless medical gulag, a state even more invasive and paralyzing than the one that he has left behind.” Mukherjee, Siddhartha. *The Emperor of All Maladies: A Biography of Cancer*, Print. p. 4.


As Thornton notes, suffering from a fatal disease takes on multiple meanings in this book that “lays bare the effects of apartheid on the psyches of both the oppressor and the oppressed.”


46 Details collected from:


The very title of the poem, “Constancy,” ironically contrasts the common definition of the word as “free from change or variation,” (Princeton. "Dictionary." Http://wordnetweb.princeton.edu/. Princeton University, n.d. Web. 1 Sept. 2012. http://wordnetweb.princeton.edu/perl/webwn?s=constancy) with the reality of the progressively disabling Alzheimer’s disease. At the opening of “Constancy,” Brodsky tells readers, “Constancy is the evolution of one’s living quarters / into a thought…” in essence, arguing that “we” all live in “our” brains; “our” thoughts are what makes “us” people. This is further emphasized in his description of the “brain-cell parlor,” where he details the metaphorical furnishings of that room — in other words, the different influences that make up a character.


http://apt.rcpsych.org/content/6/1/57.

http://apt.rcpsych.org/content/6/1/57.


She stated that: “There is no suitable memorial, or plaque, or wreath or wall, or park or scraper lobby.”


BIBLIOGRAPHY


