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Gray Matters: An Interdisciplinary Approach to Understanding the Experience of Alzheimer's Disease

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ABSTRACT

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Since the latter half of the twentieth century, the number of people with Alzheimer’s disease has grown to epidemic proportions. My project investigates the cognitive devastation of Alzheimer’s disease from several perspectives. I first outline some medical models of Alzheimer’s disease, incorporating Richard Dawkins’ selfish gene theory. Next, I explore the linguistic experience of the patient. I study Arthur W. Frank’s analysis of patient narratives and Elaine Scarry’s theory of torture to explore the way in which Alzheimer’s disease tortures the patient, stealing the patient’s ability to speak and deconstructing the world of the patient. Finally, I think about the way in which Alzheimer’s disease can support and challenge themes in Martin Heidegger’s philosophy. In diagnosing Alzheimer’s disease, the person experiences a conflation of fear and angst. I explore Heidegger’s philosophy as it relates to the experience of the patient who shows no ability to function in-the-world, yet exists corporeally.
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Introduction

We live in an age of euphemisms. People in the American culture address teenagers as ‘young adults,’ joke that people over forty are ‘over the hill,’ and respectfully label the elderly as ‘senior citizens.’ Our attempts to label people of different ages serve as a means of categorizing them into easily distinguishable groups. Through these colloquial labels, each person finds himself or herself bound with groups of people. We find ourselves as parts of other communities as well. Ethnic delineations, religious affiliations, and hobbies can also help set people into varying communities. As I drive to my home each night, I notice a different type of community. A sign advertised in large letters marks the Garden Terrace Alzheimer’s Assisted Living Community. Immediately, I understand the defining characteristic of this particular population. Pathology categorizes these men and women. Outsiders to this community recognize their difference with this group; the title ‘Alzheimer’s Assisted Living Community’ signifies the need for this community to be treated differently from other groups. Generally, a position within a community affords a person a certain level of support from other community members. In illness, the community aspect can provide a special
comfort to patients, helping them to commiserate and feel less alone in their struggle with a sickness. As insiders to a certain experience, men and women with the same categorization can share insights that outsiders cannot know. Describing men and women with Alzheimer's disease as community members contains a sense of the oxymoronic, however. The expression of the disease prevents the patient from understanding the social implications of the term, "community." Inside a facility such as the Garden Terrace, patients exist at various levels of isolation. Workers and caregivers impose a sense of community upon patients who are rapidly becoming separated from the interactions that ground us within the world. As the disease progresses, a patient's understanding of his or her place in the world seems to disappear along with the memories of the patient's other kinship attachments. Interaction stops as the disease imposes a pathological isolation upon the patient. The community becomes one of confusion and remoteness, another classification that the patient does not (more likely cannot) consider. Patients may live with other patients, but they do not understand the social implications of living with other persons. Each patient remains mentally inaccessible, trapped within his or her own body.
Alzheimer’s disease can progress at varying rates, but it often advances slowly. In the end, the disease prevents the person from communicating with any community. While the patient becomes an island, people connected with the medical field still work to study the disease, expecting to someday restore the quality of life that the patients had prior to the expression of the disease. Using terms that the patient could never understand, the medical community attempts to impose its sophisticated language and thus provide the Rosetta stone that will unlock the secrets to the pathology of Alzheimer’s disease and open the door to a cure. This technique for medicine has afforded them success in the past; their achievements benefit countless other communities. In reality, medical advancements in developed countries have increasingly changed the way in which men and women conceptualize life and death. Just two hundred years ago, men and women could not likely expect to live beyond fifty years.

Men and women in relatively affluent Western societies currently euphemize fifty as ‘middle age.’ Middle aged people look to a future in which they will be able to reap the retirement benefits of a career’s work. By this age, men and women send their children off into the world, and enjoy a quality of life that they had
before their children were born. Humans in developed countries subsist on the fruits of modern discovery. The implementation of public health initiatives, mass education concerning healthy eating habits, and water purification are all subtle but significant examples of the ways in which our current population traipses through life, giving only passing heed to these now ubiquitously disseminated discoveries.

The present age has left the developed world in a predicament. The inventions created by clever men and women allow us to live in varying levels of comfort and stability. Vaccinations, antibiotics, and other technologies of medicine have prolonged the average life span to double what it was a century ago. These amenities are taken for granted and even expected. While people expect to have the resources available that will facilitate their maturation into old age, they often ignore the price that often accompanies the comfortable lifestyle that modern medicine helps afford. Old age now brings with it the genuine possibility of a slow dying process, fraught with difficulties that challenge the way being is perceived. Disease calls the person’s quality of life into question. Someone else may enjoy the luxuries of technology, but the dying person cannot deal with the same frivolities.
One of the cruelest pathological side effects of long life attacks people at the mind, their cognitive and motivational center. Literature catalogued senility for generations, but scientists have only characterized the dementia known as Alzheimer’s disease since the beginning of the twentieth century, when Alois Alzheimer observed and professionally characterized a fifty-one year old woman’s mental deterioration due to a quickly progressing cognitive illness.¹

Alzheimer’s disease attacks the mind, which contradicts other notions of dying, such as heart attacks or cancers of the body. Instead, Alzheimer’s disease leaves the body intact long after the mind has withered. Basic bodily functions continue, maintaining the processes that somehow constitute life, but the patient cannot enjoy or even understand what the prospect of ‘life’ entails.

The naming of the affliction marked the first time in which disorders of cognitive dementia gained a status beyond a “routine consequence of aging.”² By describing the malady as something other than usual, Alzheimer transformed it into something worthy of research and

treatment. The disease entered the linguistic
consciousness of the medical community. French theorist
Michel Foucault explores the social construction of
diseases in The Birth of the Clinic. He argues that the
dawning of modern medicine resulted in a shift in the
description of medical phenomena. From myth to
rationality, the body became another entity to be
objectively perceived, not the visible result of hidden
miracles. Research and the establishment of definable
conditions set the gaze of medicine upon a new knowledge
which "opened language to a whole new domain: that of a
perpetual and objectively based correlation of the
visible and the expressible."\textsuperscript{3} Disease separated from a
"metaphysic of evil" and became held by the gaze of
death, which became "the concrete a priori of medical
experience."\textsuperscript{4} Through death, an element of the invisible
returns to medical discourse. Death, while ultimately
personal, still relates to the infinite and universal.
In the absence of the mythology that dominated early
experiences of medicine, the clinical experience has been

\textsuperscript{3} Foucault, Michel. The Birth of the Clinic: An Archaeology of
Medical Perception. Trans. A.M. Sheridan Smith. New York:

\textsuperscript{4} Ibid.
replaced with an unending discourse of scientific objectivity.\textsuperscript{5}

Alzheimer’s disease has not escaped the gaze of medicine. For the workers in the medical fields, the century following Alzheimer’s discovery was largely observational. The last decade has opened huge doors in understanding the physiopathology of the disease, but efforts at curing the disease or even effectively staving off symptoms have had little success. I am concerned that these efforts may continue to fail as long as the system of rationality dominating medicine persists in imposing the boundaries that currently influence scientific research. This project will examine Alzheimer’s disease and the effect that it may have upon peoples’ conceptions of understanding patients and their experiences with the disease.

My project will study Alzheimer’s disease from a number of disciplinary methods, in an effort to appreciate the disease from a more differentiated perspective. I will first explain the disease in the terms of the reductive methodologies of research scientists. This section will hopefully provide some insight into some of the scientific theories of Alzheimer’s disease that currently occupy researchers’

\textsuperscript{5} Ibid, Pg. 176.
interests. In the specific field of scientific study, researchers do not concern themselves with the philosophical questions that arise when considering the mind as something distinct from or connected with the brain. Rather, scientists work to understand the biological processes of the brain and the causes of pathological interruptions in those processes. The brain is such a complex organ that scientists can spend an entire career studying only the intricate pathways and systems that characterize it.

While strict scientific research may not allow scientists to engage in philosophical meditation, scientists certainly do consider the philosophical questions regarding their work. I will examine the thought of one such sociobiologist, Richard Dawkins. He supports the 'selfish gene theory,' which elevates genes to a level of dubious importance. The selfish gene concerns itself with its own perpetuation. Humans, in turn, are reduced to being the hosts of the parasitic genes. Dawkins expands upon the evolutionary model to encompass both biological and cultural evolution. He coins the term, 'meme' to include those bits of culture that seem to propagate themselves through the same

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natural selection of genetic evolution. The current trend of Alzheimer's disease research is focusing upon genetic theories. Dawkins' approach to understanding life gains relevance for this project as the genetic theories of Alzheimer's disease are explored.

While Dawkins' theory may be scientifically persuasive, it offers little insight into the lived experiences of the patients and their caregivers. In the second chapter, I try to move beyond the study of the selfish genes to the consideration of the people who are connected to Alzheimer's disease. Sociologist Arthur W. Frank discusses the different ways people with illnesses construct new narratives.\(^7\) The different ways that they describe their experiences of disease reflect the patients' linguistic attempts to regain control of their lives. For people with Alzheimer's disease, the narrative takes on a different kind of importance. As much as a patient tries to gain control, the disease continues to relentlessly strip away the person's ability to communicate. The disease's progressive destruction echoes Elaine Scarry's argument concerning acts of torture.\(^8\) I argue that Alzheimer's disease can be


conceptualized as a torturer because of the way in which the disease destructs language and world of the person. The brain betrays the body because of the disease, and the disease reconstructs a world of illness that renders the patient non-communicative.

Because of the linguistic incapability of people with Alzheimer’s disease, patient narratives are hard to obtain. One excellent insight into the world of illness is Thomas DeBaggio’s memoir. Thomas is a ‘middle-aged’ man in the beginning stages of Alzheimer’s disease. His account gives outsiders a sample of what life with Alzheimer’s disease is like, as well as describing the tortuous nature of the disease.

Ultimately, the experience of Alzheimer’s disease is one that remains interior and private. The nature of the disease prevents the outside community from ever gaining a real grasp on the feelings of the disease. Some of Martin Heidegger’s themes, however, help elucidate the concerns that Thomas addresses. Furthermore, Heidegger’s arguments concerning death must be examined in light of Alzheimer’s disease; the cognitive decline of the patient severely inhibits the patient’s ability to authentically face his or her own death. The progression of

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Alzheimer’s disease takes the patient out of the nexus of tools and care. The person cannot care for others or act as a participant in the world with others. Likewise, the patient requires the care of others in order to remain in the world.
Chapter One: Medical Models of Alzheimer’s Disease

“The senses collect the surface facts of matter...It was sensation; when memory came, it was experience; when mind acted, it was knowledge; when mind acted on it as knowledge, it was thought”—Ralph Waldo Emerson

The Technology of the Brain

The brain operates as a highly organized system of processes and pathways. Scientists studying these processes work to offer biological answers to the psychological and philosophical quandaries about behavior and the mind. They approach the study of the brain reductively, choosing to learn about the biological processes of the brain. For their way of operating, the complexity of the brain mirrors and grounds the ability for humans to exhibit complex behaviors. A normal brain also maintains constant flexibility, nimbly integrating its different parts in a way that reflects the person as an active whole.

In order to understand the way in which Alzheimer’s disease affects the brain, we must explore some basic background knowledge about the brain. Different parts of the brain have highly differentiated functions, but all brain parts share some basic structural and functional similarities at the neural level. A brain contains
approximately $10^{11}$ nerve cells, which are its basic functional units. Functional differences further distinguish neurons into three different groups: sensory, motor, and interneurons. "Sensory neurons carry information from the body's periphery into the nervous system for the purpose of both perception and motor coordination. Motor neurons carry commands from the brain or spinal cord to muscles and glands. Interneurons... [consist] of all nerve cells that are not specifically sensory or motor."$^{10}$ Each of these neurons shares a similar structure, but can network together in ways that produce strikingly different functional results. Neurons generate electrical signals that act as a biological language by which neurons communicate with each other. Through the many types of specific networks that neurons make, and the different chemical transmitters that neurons use between one another, neurons become responsible for controlling motor responses, processing sensory information, controlling emotions, and storing memory.$^{11}$

Nerve cells are made of a cell body, an axon, and dendrites. The cell body contains the nucleus (which

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$^{11}$ Ibid. Pg. 21.
houses the DNA, as well as the organelles that make proteins). The axon and dendrites comprise the largest volume of the neuron. The cell body extends into the axon. An axon can be very long, as it transmits messages to other neurons. Dendrites also branch out from the cell body. They connect with other axons to receive information from other neurons.

A cytoskeleton gives the neuron shape and determines the placement of organelles in the cell body. The cytoskeleton is made up of different types of fibrillar structures: microtubules, neurofilaments, and active microfilaments. For our purposes, only a brief discussion of microtubules and neurofilaments is necessary. Microtubules form the macrostructure of the cytoskeleton. They grow from the polymerization of tubulin subunits. Interactions with other proteins such

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12 A living cell is a tiny system by itself, and the nerve cell is no different. Within it are specific organelles, which like organs, serve specific functions. For example, the organelle called the mitochondria produces energy for the cell. Another organelle called the Golgi Apparatus modifies proteins by adding sugars to them. These are two examples of many organelles that work together to make a cell function.

13 Filaments are the threadlike structures that construct the 'musculature' of a cell.

14 Genes provide the code for proteins, which organelles translate and then modify by adding different types of molecules. These modifications will cause the protein to have different shapes. Tubulin is one of these proteins. The function of tubulin is to form the most basic structural unit of the microtubule.
as tau\textsuperscript{15} and microtubule-associated proteins (MAPs) stabilize the structure of the microtubules. Neurofilaments “are the bones of the cytoskeleton.”\textsuperscript{16} They are very stable, being made by protein fibers that twist together like rope to twirl into a thick, helical filament.

Glial cells\textsuperscript{17} comprise the other major cell group found in the brain. They outnumber neurons ten to fifty fold, and while they do not function in the actual processing of information, they aid neurons in a number of ways.\textsuperscript{18} Specialized glial cells called microglia aid as phagocytes, cleaning up neuronal debris after the brain suffers an injury or disease. Macroglia, the other main group of glial cells, are specialized into three types: oligodendrocytes, Schwann cells, and astrocytes. Oligodendrocytes and Schwann cells both produce myelin,

\textsuperscript{15} Tau is a different protein found in the axon; it stabilizes the microtubule. Changes in the structure of tau are found in the brains of patients with Alzheimer’s disease. These changes will be discussed at length later.

\textsuperscript{16} Kandel, et al. Pg. 73.

\textsuperscript{17} Glial cells are different from nerve cells both in structure and function. While nerve cells actually do the work of processing information, glial cells do not. Rather, they carry out several tasks that support the neurons and help maintain the integrity of the brain processes.

\textsuperscript{18} Kandel, et al. Pg. 20, 21.
which insulates the axons of a neuron. Among other functions, astrocytes help form the blood-brain barrier, which protects the sterile brain from becoming infected by bacteria, etc.

At the systemic level, cells are organized into several anatomical components, each working to control one more of the many functions of the brain. Often, an activity will involve more than one part of the brain working together with other parts. Scientists categorize the brain into six regions (the medulla, pons, cerebellum, midbrain, diencephalon, and telencephalon), with each region differentiating into other more specified sections. I will not explore the functions of each particular part, but I will include a brief description of the brain region if called for by context.

**Birthing a New Identity**

Alois Alzheimer first characterized pre-senile dementia in 1901, when a 51-and-a-half year old woman named Auguste D. was admitted to the Municipality Asylum for the Mentally Sick and Epileptics in Frankfurt where Alzheimer worked as both a clinician and a researcher.

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19 Neurons conduct much of their information via electricity; the insulation of myelin increases the speed of electrical signals.
Auguste D. was a wife and mother of one daughter. She had no health problems prior to her admittance, and had begun showing subtle cognitive symptoms only eight months before she entered the hospital. She had been happily married since 1873, but in March, she began to accuse her husband of walking with a neighbor. She then began to forget simple things, which progressed into having difficulty preparing meals and handling money. Her agitation grew as her symptoms progressed and she exhibited other displays of unfounded paranoia. After entering the asylum, Alzheimer interviewed Auguste D. several times, and each time she responded with confusion, shifting her emotions as she struggled to answer his simple questions. Her motor functions, however, were normal. Alzheimer made periodic observations of Auguste D. for the next five years.

Auguste D. died of pneumonia in April 1906. At the time of her death, she was bed-ridden and incontinent. Her disposition was one of total apathy.

When Alzheimer first examined sections of Auguste D.’s autopsied brain under a microscope, the tissue samples

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did not have a normal appearance. Rather, scabby looking structures dotted the samples, giving the appearance of a type of pox of the brain. Brown plaques obscured the appearance of the normal brain tissue and could even be seen without the aid of a Nissl stain.\textsuperscript{21} Some stains, though, greatly amplify the magnitude of the plaques across the surface areas of the cerebral cortex. Staining cells of the deeper layers of the brain cortex with Bielschowsky silver stains\textsuperscript{22} revealed thick fibrils and fibrillary bundles–agglomerations of dark string-like tangles, resembling balls of twine. These tangles, which had overtaken many of the neurons, seemed to be "choking" them. The shells of the dead neurons remained as a sort of cellular grave marker. Most of the dead neurons were missing their cellular organelles, and many of them had no nucleus at all. The fibrils remained in the empty cells, suggesting some kind of chemical transformation of the normal fibrils. Furthermore, glial cells showed the pox-like plaques as well as fiber formations.\textsuperscript{23}

\textsuperscript{21} Franz Nissl, a good friend of Alzheimer's, perfected the stain, which makes distinct the plaques that cover a brain with Alzheimer disease.

\textsuperscript{22} This different type of stain exaggerates the look of the fibrillary tangles, making them easier for researchers to identify.

\textsuperscript{23} Maurer, et al. "The History of Alois Alzheimer's First Case." Ed. Whitehouse, Pg. 20, 21; Shenk, Pg. 78.
The disease that Alzheimer suggested was 'pre-senile dementia' did not gain the name Alzheimer's disease until 1910, when Alzheimer's colleague Emil Kraeplin named the disease in his *Handbook of Psychiatry, 8th ed.* At the time of the book's writing, Kraeplin knew of only four documented cases of the disease, but Alzheimer was studying the histopathology of a fifth patient at the time of the handbook's publication.

During the first years after Kraeplin named Alzheimer's disease, scientists could only review brain damage post mortem. By this time, Alzheimer made the argument that the symptoms indicated a pre-senile disease rather than a pre-senile dementia, due to the severe histopathological characteristics with comparison to the histopathology of the brains of patients with pre-senile dementia.

In the early days of Alzheimer's disease, diagnosis was limited to those under the age of 65. An elderly

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24 Maurer, Pg. 23. An interesting mystery surrounds Kraeplin's speed in naming the disease after Alzheimer. Two other clinical researchers, one of whom had worked closely with Alzheimer, presented similar case studies. Kraeplin could have easily named the disease after any of these three researchers. While hypotheses swirl as to why Kraeplin made his choice, the most accepted answer simply relates to his professional relationship and close friendship with Alzheimer.


26 Histopathology is the study of the changes that occur at the cellular level as a result of a particular disease process.
person with the same symptoms was not necessarily considered to have a disease; he or she was simply experiencing the effects of aging. The biological research surrounding the disease waned throughout the 1940s and 1950s as psychodynamic theories of dementia emerged. In the 1970s, however, people came to focus upon the aging populations in Western Europe and the United States.  

Robert Katzman published an editorial reflecting upon the similarities between senile dementia in the elderly and Alzheimer’s disease. Offering a socially kinder grouping than “senile” or “demented,” “Alzheimer’s disease” became the new marker of identity for those with pre-senile and senile dementia. By giving so many sick people this identity, the disease became understood as an epidemiological crisis. Biological findings supported this claim, and the social status gained from the new identification of sick people spurred on additional studies. Research shifted as new lines of investigation emerged. The sophistication of microscopy allowed plaque and tangles to be examined meticulously by electron microscopes. Neurochemistry focused upon

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Ibid. This crisis reflects the shift that occurred due to the aspect of the disease’s social construction. As more and more people were labeled with the disease, the numbers of sick people took on epidemic proportions.
changes in neurotransmitters, specifically the loss of acetylcholine.\textsuperscript{29} Most recently, genetic research commands the attention of Alzheimer’s researchers.\textsuperscript{30} Before discussing the recent advancements in the genetic research of Alzheimer’s disease, let us look more specifically at the disease’s histopathology.

Inside the neurons, the cytoskeleton undergoes pathological changes. Chemical changes occur to the protein tau, which helps stabilize the microtubule as a kind of “railroad track tie”.\textsuperscript{31} The tau protein becomes hyperphosphorylated, which means that many phosphorous molecules become attached to the protein. This modification of tau changes the normal structure of tau from one that is soluble to one that is insoluble. The new, diseased tau, folds and twists into helical filaments. In a healthy nerve cell, tau serves its purpose by strengthening the stability of the microtubule. The hyperphosphorylated, diseased shape of tau; however, causes the structure of the microtubule to fail. The microtubule can no longer facilitate the placement of organelles within the cell. Furthermore,

\textsuperscript{29} Neurons also use chemicals to transmit signals. Acetylcholine is one such chemical.


\textsuperscript{31} Ibid.
the proteins and nutrients are unable to be transferred between cells. The broken "railroad ties" cause the train of cellular communication to wreck, leaving the cells cut off from life sustenance. As a result of the isolation, the neurons eventually die. The insoluble filaments remain, marking where viable cells once existed.

One of the first anatomical changes takes place as the protein tau begins to hyperphosphorylate in the entorhinal cortex. This cortex plays an important role in the storage of explicit memory. Damage to the entorhinal cortex prevents memory from passing through the entire pathway for storage. Thus, one of the first symptoms that people experience is the inability to properly learn new facts and make new memories of people, places, and things. The fibrillary tangles continue

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32 Kandel, Pg. 1232. A cortex is the outer layer of a particular component of the brain. What follows in this note is a jargony, but medically necessary account of the memory pathway. While relaying this pathway may cause transient pain to the reader, it is important to consider the pathway in order to more fully understand the disruption that occurs from the disease. The storage of memory involves a pathway: Visual, auditory, and somatic information is processed in any or all of the prefrontal, limbic, and parietal-occipital-temporal cortices. The information is then transmitted to the parahippocampal and perirhinal cortices, then on to a variety of sections, including the entorhinal cortex, which eventually transmits information back to the parahippocampal and perirhinal cortices before moving to the neocortex.

33 Explicit memory refers to the type of memory associated with facts. This type of memory contrasts with implicit memory, which deals with memories of processes that are unconsciously recalled, like motor skills.
forming, extending into the neocortex. Damage to the neocortex affects the transmission of information into several areas of the brain. The delicate processes of the brain become misguided and slow.

Changes continue as amyloid plaques begin to form in the entorhinal cortex and the hippocampus. Amyloid plaques are made of the protein fragment beta-amyloid, which results from its cleavage off of a larger protein—the amyloid precursor protein (APP)—which is embedded in the cell membrane. The function of APP is not entirely known, but this protein is found in all parts of the neuron. Enzymes\(^{34}\) slice off the beta-amyloid in two lengths. The shorter length is soluble, but the longer length aggregates quickly into insoluble 'sticky' glomerations that intermingle with glial cells to form the thick plaques that characterize the brains of patients like Auguste D. With damage in the glial cells, the brain loses its ability to heal damage. Injury adds to injury as the disease progresses, unchecked by molecular mechanisms of healing.

Doctors understand the presentation of the disease with increased specificity. With the medical community's increased understanding of the disease, diagnostic tools have also advanced. In fact, they have improved to a

\(^{34}\)An enzyme is a protein catalyst.
point in which people can be diagnosed in a generally accurate manner soon after symptoms become noticeable and before the damage has become significant. MRI and PET scans can now indicate cellular damage in the hippocampus\(^{35}\), thus strengthening the accuracy of a diagnosis of “probable Alzheimer’s [disease]”.\(^{36}\) By the time that damage becomes noticeable enough for this type of testing, though, the patient may already be aware that something is awry. Stephen Post describes the moment of diagnosis: “Many experienced health care professionals have gone through much agonizing about whether to tell the patients about Alzheimer’s disease only to hear the patient say, ‘That’s what I thought all along.’”\(^{37}\) A person is often marginally aware of the effects of the biological changes occurring inside of him or her. This concern represents the issues that the disease raises when one moves beyond the biological processes of a person. Later sections of this project will take up these concerns.

\(^{35}\) As noted earlier, the hippocampus serves a vital function in the processing and storing of new memories. A damaged hippocampus will greatly hinder a person’s short-term memory functions.

\(^{36}\) Shenk, Pg. 37, 38.

Genetic Reductionism

In *Science as a Vocation*, Max Weber makes the argument regarding the disenchantment of the world. Scientific progress, he contends, works through a "process of intellectual rationalization" that leads to a "belief that...one could in principle master everything through calculation."\(^{38}\) Although a person may not understand the intricacies of a given technological process, he or she is left with the impression that all obscurities could potentially be rationally explained.\(^{39}\) A link into understanding the mysteries of the human body has been discovered in the gene. In 1952, James Watson and Francis Crick made public the biological blueprint for life: the genetic code. Less than fifty years later, scientists determined the sequence of the human genome. Put succinctly, genes are "the units of genetic information."\(^{40}\) Each gene is a segment of deoxyribonucleic acid (DNA), found on a chromosome.\(^{41}\) The

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\(^{39}\) Ibid.


\(^{41}\) A chromosome is the threadlike self-replicating structure in a cell that contains the DNA and associated proteins.
genetic code, stored within the nucleus of each cell, holds the instructions for making a protein. Cellular machinery assists in the translation of the genetic code into proteins.\footnote{Proteins formed by the process of gene translation have a myriad of specific conformations and functions.}

A basic tool of building life, genes hold the secret as to whether an organism will be a hibiscus or human. For humans, unlocking the secret to an individual’s genetic code could explain characteristics such as eye color, hair texture, and propensities for diseases. A human cell contains 50,000 to 100,000 genes, arranged on 46 chromosomes (23 homologous pairs). With a human’s existence partially dependent upon their genetic information, genes can be perceived as having a type of power. Using the power of genes as a paradigm, one can rationalize Alzheimer’s disease as a result of genes exerting their influence.

a common ancestry. While we observe evolution and the differentiation of species at the macro level, changes are occurring more much intricately. In order for the biological alterations to be passed along to the progeny of the future, mutations must occur at the molecular level–DNA must be changed, with those changes conserved in the code. Reproduction ensures that the changes are permanently incorporated into the offspring’s genes.

For sociobiologist Richard Dawkins, genes hold a privileged status. He believes that complex systems can be explained in terms of units that gradually become smaller and smaller until the system reduces to its fundamental unit.44 In the case in which the system is a living organism, the fundamental unit is the human gene. Dawkins uses the paradigm of ‘survival of the fittest’ to describe gene perpetuation. He coins the term, the "selfish gene,"45 which describes the way in which reproduction and evolution are actually reducible to code.

44 Ian Barbour, who works at the interstices between religion and science, critiques the theory of Dawkins. Barbour labels Dawkins an epistemological reductionist or materialist because of the primacy that Dawkins gives scientific explanation. His belief that science is the only explanation available to humanity results in Dawkins bracketing any belief system that stands outside of the strictly rational. For a detailed critique of Dawkins’ philosophy, see Barbour’s When Science Meets Religion. San Francisco: Harper San Francisco, 2000.

Dawkins’ hypothesis relies on the notion that organisms come not from an unknowable origin, but from rationally examinable code. Maintaining a reductionist view, he holds that only the rationally tangible can explain humanity. When positivists strip away the seemingly unique characteristics that make us all different, they find that in a large part it is our code (genotype) that helps determine those attributes—not a Geist that defies experimentation. Our genotype specifies the basic composition of our body by coding for the proteins that build into our biological matter. Dawkins would contend that ultimately, the experiences of life are only byproducts of the biological activities originating with the cellular code. Once the code has been expressed, the gene remains in the cell; its function has been completed. In this way, genes can be thought of as a parasite in the cells of every human host. The host body continues to give shelter to the genes, and even disperses them through reproduction. If we think in this manner we can say that genes just freeload in each of our nuclei. The human is nothing but the genes’ “survival machine,” by which the gene “hitches a ride.”46

46 *Selfish Gene*, Pg. 45.
Silently, the selfish gene waits for the time in which it will be conserved through reproduction and passed along to unsuspecting progeny. According to Dawkins, we base our decisions around the facility of gene transmission—whether or not we cognitively realize our driving force.\textsuperscript{47} We are manipulated by a biological drive whose sole purpose is to disperse genes into future generations. Dawkins considers genes to be objects of powerful force, manipulating us by way of our seemingly autonomous decision-making. Humans must pass along the genetic code in order for humankind to survive. The need for sustaining life plays into our fundamental decision-making.

Even the cycles of life follow a path conciliatory to the gene code. Conception joins together 23 chromosomes from each parent, making the 46 pairs. Once conception has occurred, the cell begins the process of dividing and differentiating. Genes are turned on and off in an intricate play that results in differentiation between types of cells. A skin cell is very different from a liver cell, but each nuclei contains the same code. Once cells differentiate into a given type of organ cell, genes are permanently suppressed. Still, they are passed along to future cellular generations.

\textsuperscript{47} Ibid.
For example, after a cell has gone through the process of differentiating into a pancreatic cell, the genes that could have been expressed causing it to be a kidney cell continue to dwell inside of the nucleus.

Differentiated genes quietly spend time, expressing themselves into the proteins that maintain their hosts. Specialized proteins, hormones, play a particularly large role. They increase greatly with the onset of adolescence, and are responsible for the physiological gender changes that accompany maturation from child into adult. An increase in hormone production often manifests itself in an increased drive to reproduce, which disperses genetic material. The person continues to produce high levels of hormones through the reproductive years. Sexual drive begins to wane at the age in which a couple’s new survival machines, children, would come of the age in which they could reproduce their own genes. With this line of thinking, the function of the organism is to act as the biological home to the selfish genes that use the organism’s body to perpetuate themselves. Once genetic transmission has occurred, the host’s purpose is finished. The code has been preserved for the future. The host body has little purpose; therefore,

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48 Ibid, Pg. 35. The implication of this proposition is that the existence of the elderly has little biological significance.
it withers and dies away. To use a different analogy, think of a strawberry. The sweet fruit is actually only the means by which the strawberry seeds can be dispersed. The flesh of the fruit attracts a bird, who then scatters the genetic material of the strawberry. Once the bird has picked at the strawberry flesh, the remaining fruit decays and the seeds are left on the ground.

By even characterizing genes as having power, an element of personification enters our thinking. Once personification of genes starts, one can begin to attach attributes and distinctive qualities to them. Through personification, human attributes are projected upon the genes. Dawkins allows them to be imagined as seemingly autonomous agents capable of decision-making and choice. He assumes that genes have agency in order to support his theory of epistemological reductionism. In actuality, genes are only bits of biological code. In Dawkins’ theory, genes must be personified to give them attributes of selfishness or agency. He makes an epistemological assumption concerning the qualities of the genes. For example, Dawkins discusses the fact that while genes have the potential to be copied and conserved for millions of years they often do not last for more than one generation. He concedes that some new genes last because of luck, but more importantly to his argument, he says
that the surviving genes, "have what it takes."\textsuperscript{49} He goes on further to state that "any gene that behaves in such a way as to increase its own survival changes in the gene pool...will...tend to survive."\textsuperscript{50} According to Dawkins, the gene manifests its behavior by affecting the development of the survival machine. The gene must be thought to be conscious, though, in order to be able to manipulate development.

Even the act of sexual reproduction involves a certain amount of randomness. While all other cells in the body contain forty-six chromosomes (twenty-three from each parent), sex cells (gametes) contain only twenty-three, thereby preparing them for fertilization with another gamete and the restoration of the total forty-six chromosomes. During meiosis, the reductive division of gametes, a random act occurs that serves to increase diversity among species. Matching chromosomes from the mother cell will line up together, and then exchange genes in a process called crossing-over. This act ensures random genetic variability from parent to offspring, but the act does maintain randomness. No gene is specifically privileged over another. Dawkins discusses crossing-over, and acknowledges that shorter

\textsuperscript{49} \textit{Selfish Gene}, pg. 36.

\textsuperscript{50} Ibid.
pieces of genes are even more selfish, as they are less likely to undergo the process of crossing-over. In the same way that we cannot know if genes have will, we cannot speculate whether or not genes have significant ulterior motives for the reproductive process. DNA has no conscience or conscious ability to even make any sort of decision.

Are we only our genes? Staring in the ‘face’ of the selfish gene, men and women make decisions that directly contradict the ‘motives’ of the genes. Couples who choose methods of birth control in order to limit the number of conceived children, women who abort their pregnancies, and couples who choose not to bear children all face the reality that their genes will not be passed on, or at least that they will be passed on to a decreased number of offspring. These choices clearly do not take into consideration the well being of the genes. When considering instead the rapidly diminishing resources of the Earth and the booming human population, the choice to have a smaller family may seem less selfish than previously thought. The desire to control reproduction involves choice, and it is a choice that may be partly influenced by the area of the world in which a person lives. The availability of birth control could

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51 Dawkins, (1989), Pg. 29.
impact one culture’s opinion of family planning, while in another culture governmental sanctions might a couple’s decisions.

Culture envelopes us from our first breath onward, so genetic expression is pragmatically meaningless out of the cultural context. Scientists even respond to this by contextualizing the expression of genes. The genotype may be the code itself, but the phenotype is the physical result of the code. The phenotype may include the expression of mistakes made by the proteins, the interactions between systems of genes, or the expression of certain genes due to environmental factors such as diet, exercise habits, or pollutants. The phenotype displays the overwhelming complexity of the play between genes and the environment.

Dawkins interprets culture in the same manner as genes. He extends his reductive position to the system of social science with his insights into cultural systems. Social themes likewise disperse through the public in units that Dawkins calls 'memes.'\textsuperscript{52} The meme itself is a type of cultural genotype and its appearance in the environmental setting results in a sort of phenotypical expression. Correlative to biological

\textsuperscript{52} Dawkins introduces the concept of the meme in The Selfish Gene, but continues his argument in his sequel, The Extended Phenotype: The Long Reach of the Gene.
reproduction, memes spread themselves through intellectual reproduction. The memes most edifying to a culture will be conserved over time. Like the gene that is the parasite of the cell, a meme “parasitizes [the] brain, turning it into a vehicle for the meme’s propagation”\(^{53}\). Of course, the propagation occurs without the knowledge or volition of the host. Parasitic memes randomly infiltrate society and the unsuspecting hosts—namely, all of us—incorporate them into our daily lives. The genetic-cultural relationship makes us what Dawkins calls the extended phenotype. The memes that were mentioned earlier, such as birth control availability or government sanctioned birth control, have a lasting effect upon the dissemination of genes. A person’s extended phenotype, then, includes the memes that have networked with the genes in the inevitable interchange. Dawkins affords genes and memes all the agency that humans believe themselves to possess. Genotypes and phenotypes reflect this agency and the illusion of sovereignty that people feel. For Dawkins, then, the mind is the product of the extended phenotype. It consists of hormonal activities in the brain—hormones that are reduced to proteins which initially come from

the genetic code— and the memes that restructure the content of thoughts.

**Genetic Theories of Alzheimer’s Disease**

As Dawkins offhandedly points out, "ancestors just don’t die young!" All of the men and women who can be labeled ‘our ancestors’ lived long enough to reproduce. Yet people age, get old, and die. How does the selfish gene theory account for this phenomenon? Dawkins does not explore the matter in detail, but he lays out the theory of Sir Peter Medawar, which Dawkins finds persuasive. The expression of genes causing decay is late-acting, ensuring the genes’ own success through their patience. Even if they result in the detriment of the host, some stable genes thrive through generations because they do not become active until the person has already passed through the early stages of life. Dawkins suggests that senile decay results from the accretion of semi-lethal and lethal genes in the gene pool. In the presentation of symptoms, the dominant

54 Dawkins (1989), Pg. 40.

55 These genes are called ‘lethal’ or ‘semi-lethal’ genes.


57 Ibid.
forms of Alzheimer's disease do not refute this theory. Patients experiencing Alzheimer's disease usually start showing symptoms towards the end of the typical ages of child bearing and rearing. By the time that men and women begin to phenotypically show the effects of the disease, they have often had ample opportunity to pass along their selfish genes to offspring.

Genetic research has become one of the most abundant areas of Alzheimer's disease research. Alzheimer's disease appears to fall into two types. Familial Alzheimer disease (FAD) follows an identifiable inheritance pattern, while sporadic Alzheimer's disease shows no obvious pattern.\(^{58}\) To divide the disease further, the patient is described as having early-onset or late-onset Alzheimer's disease. The early-onset form of the disease occurs more rarely than late-onset, and this type affects men and women at younger ages, between 30 and 60 years. Early onset also progresses faster than the late-onset type. Even if a person does not suffer from early-onset Alzheimer's disease, however, his or her chance for developing late-onset Alzheimer's disease doubles every five years after he or she turns 65 years old.\(^{59}\)


\(^{59}\) Ibid.
Researchers have identified three different genes on three different chromosomes that have the potential to carry defects that will lead to FAD. Chromosome 21 codes for APP; mutations in this gene have been identified as the causes of some cases of FAD. Mutations result in the substitutions of amino acid sequences. Cells containing the mutant amino acid sequences produce an abundance of beta-amyloid protein. Two genes, known as presenilin 1 and 2 have been located on chromosomes 14 and 1, respectively. Mutations in these genes result in atypical protein production. Cases of people developing Alzheimer’s disease from any or all of these three mutations are rare. Late-onset, non-familial forms of the disease comprise the majority of the statistics on Alzheimer’s disease cases.

The risk of developing late-onset Alzheimer’s disease seems to be genetically linked with a type of genetic variation found on chromosome 19. The apolipoprotein E gene (APOE) produces the APoE protein, which aids in the transport of blood cholesterol in the body. Neurons and glial cells also contain APoE protein, but the plaques found on the brains of Alzheimer patients contain an abundant amount of this protein.\textsuperscript{60} Researchers

\textsuperscript{60} Ibid.
have particularly studied three versions of the APOE gene with regards to Alzheimer disease. Research suggests that inheriting the allele APOE epsilon 4 (APOE e4) increases the chance of developing late-onset Alzheimer’s disease.61 A person inherits one gene from each parent, so a person could potentially inherit zero, one, or two copies of this particular allele. According to the 2000 Progress Report on Alzheimer’s disease, a person’s risk of developing late-onset Alzheimer disease increases with the number of APOE e4 alleles inherited. In contrast, the APOE e2 allele may protect the person and APOE e3 shows no significant role in the development of the disease. Carrying these alleles, however, only increases the risk of developing the disease; the type of allele neither undeniably predicts the disease nor does it cause the disease.

Environmental factors may also increase the risk of a person’s probability in developing Alzheimer disease. A person’s extended phenotype most likely factors into a person’s prospects for the disease. An unhealthy diet often results in the build-up of fatty plaques in a person’s arteries—both in the brain and the rest of the body. Vascular disease in the brain is the second

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61 Ibid.
leading cause of dementia, and blood cholesterol levels may play a part in brain plaque formation.\textsuperscript{62}
Chapter Two: The Betrayal of the Self

"Difficult as it is really to listen to someone in affliction, it is just as difficult for him to know that compassion is listening to him." -Simone Weil

The Search for a Narrative

The Forgetting, David Shenk’s book outlining the different stages of Alzheimer’s in narrative form, recounts a tale of irony concerning one of the most celebrated writers of the nineteenth century, Ralph Waldo Emerson.⁶³ Suffering from an uncharacterized dementia (now widely accepted to be Alzheimer’s disease), Emerson has stopped writing new lectures. He still, though, had the requisite mental faculties to read works that he created earlier in his life. In 1879, he gave a lecture that he had written at the age of 22, entitled “Memory.” Emerson described memory as the stuff that holds us to family and friends and gives value to new facts.

Even as he gave the speech, he could not gather his thoughts from sentence to sentence. His insights into memory held intense irony since his own life had none of the cohesion that memory provides. His lack was obvious. Critics observed that Emerson’s language was stilted and at times in his confusion, Emerson could resort only to

⁶³ Shenk, Pg 101.
silence. In this silence, we understand now that Emerson had passed into the middle stages of the disease. By the time the person shows the characteristics of this stage, his or her symbol system has begun to significantly degrade. Ways of expressing signified things become jumbled, or disappear altogether. The anxiety that accompanies the initial stages of the disease starts to dissipate as well. At first the anxiety returns in waves of undifferentiated fear, but as the person's amnesia becomes more generalized, the anxiety seems to disappear.

When we, as outsiders to the disease, look at a patient, what do we witness? Do we see the genes skulking about, waiting to do their dirty work of hyperphosphorylating tau proteins in the brain? Does the average person observing a person with Alzheimer's disease understand the patient only in terms of his or her hippocampal or Broca's Area damage? Clearly, most people would not identify a patient purely as a mass of wayward genes. We observe the effect that the disease has upon the person's identity. Researchers use a valuable scientific narrative in discussing matters of the brain, but their manner of conversing fails in helping to understand the experience of the patient. Max

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64 Ibid, Pg. 102.
Weber makes insights into the dangers of the positivistic methodologies of the scientific and medical fields in

**Science as a Vocation:**

All natural sciences give us the answer to the question: what should we do, if we wish to control life technically? Whether we should control it technically or indeed with to, and whether that in the end has any meaning, are questions which science does not go into or which it prejudices for its own ends.65

Weber’s critique of modern medicine stems from medicine’s disregard of a patient’s quality of experience in favor of reducing suffering through the extension of life, with the assumption being that death is synonymous with suffering. Science, then, maintains technical control over patients, while ignoring the experiential aspect of the disease process.

Even patients with Alzheimer’s disease think (while still able) of themselves in terms of being-ness, filled with indescribable nuances that separate them from all other creatures. To the extent that the disease can be objectified, the patient does just that. By separating the self from the illness, a sense of agency is restored to the person. They regain control through the process of making the disease as something other. Shades of this objectification color anyone’s relationship with illness, but the ease in separating oneself from an illness

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65 Weber, Pg. 19.
powerfully lessens when it is the body that attacks itself.

The path of Alzheimer’s disease causes the components of the brain to be attacked, betraying the mental functions that link with the brain organ. When a part of the body makes its own parts enemy, an act of betrayal occurs. A person often assumes that his or her body will maintain its homeostasis. The body betrays the person by disrupting its own balance. Changes in the brain betray the self by stealing the ability for the self to differentiate itself. Biological problems dismember the brain, and the result is an inability to re-member itself. The destruction of memories results as the manifestation of the brain’s difficulties and the body remains as the functioning shell of the former identity.

Corporeality itself can also be considered linguistically. We can interpret the body as textual, and even if the body does not give coherent words, some form of communication exists to chronicle a person's relationship with the world. In a pathological situation, this comment gains more importance as the disease becomes the patient’s referent, changing the body in ways never previously experienced by the patient. Patient narratives generally fall into three categories,
outlined by Arthur W. Frank in his book, *The Wounded Storyteller: Body, Illness, and Ethics*. Men and women with diseases use each of the narratives styles as ways of gaining control over the maelstrom of physical feelings and emotions brought about by the intrusion of an illness. Taking cues from Elaine Scarry, Frank addresses the multiple ways in which patients attempt to relieve their pain through the vehicle of language. The nature of the illness largely dictates the type of narrative that the person will adopt. A person tells his or her story in order to find and communicate the 'true name' of his or her illness. Frank describes three different types of ideal narratives. People often merge the various narrative styles to reflect their own personal experiences, but patterns still emerge. People most often use restitution narratives to describe their experience of illness. This narrative style involves people clearly objectifying an illness as something other, an entity that can be fought. The illness, having infiltrated the body, has no bearing upon a person's identity. The

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67 Frank, Pg. 75.

68 Ibid., Pg. 77.
person remains a ‘me’ and the illness is an ‘it’. The plots of restitution narratives follow similar patterns. The person, presently sick, will battle the disease and look forward to a disease-free future. In the institutional form, drug companies effectively use the restitution narrative to infuse hope into a sick patient, suggesting that if a person uses a particular drug he or she will regain the health that he or she enjoyed prior to the illness. People can easily latch onto this type of narrative because it not only validates the notion of the healthy body as ideal; it lets the self defer responsibility until the body is healed of its malady. The self becomes the passive recipient of the actions brought about by a doctor or drug; its new identity as ‘patient’ hopes to be only transient, returning to its previous identity as a healthy person.

The quest narrative, in contrast, is used by a person as a mechanism of empowerment. This narrative style enables the person to claim his or her illness. The illness becomes the means by which the patient gains a voice for him or herself, sending the patient on a journey that will foster a new relationship with the

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69 Ibid.
illness. The patient may not have chosen to travel this particular road, and may even initially ignore the call of departure. The patient may not understand what the journey will entail, but he or she knows that it will involves trials and struggles. Once the journey has ended, however, the patient is irrevocably changed. He or she may or may not return to the ideal of health. Whichever results, the person will become a conqueror of illness, enlightened through struggle and able to effectively live simultaneously inside the worlds of health and illness. The great effort of the illness reconstitutes the person’s identity, shifting it into one of ‘survivor.’

In Alzheimer’s disease, the notion of a communicative body takes on an even greater essentiality. The disease is doubly troublesome because the patient is first stripped of control through the diagnosis, but then he or she cannot really regain any kind of control through narrative. That is not to say that the patient does not try. In the beginning stages of the disease's expression, when the patient still has some cognitive grasp on upon his or her new limitations, the patient may try to express his or her experience in narrative form.

70 Frank, Pg. 115, 117.

71 Ibid., Pg. 118, 119.
The patient is called to journey through the depths of the illness, but no triumphant wisdom awaits the heroic patient. The experience of the illness will not end in health or even in a lifestyle that is pain-filled but manageable. Nor can the patient place his or her well-being in the hands of doctors and prescriptions. No drug or professional can cure this disease—at best they can only temporarily stave off symptoms.\textsuperscript{72} The restitution and quest narratives explained above cannot accurately portray the experiences of those people who do not face a healthy future.

Instead, these patients often express themselves only through chaos narratives, the type of narrative most often associated with people suffering from progressive illnesses and their caregivers. Without the hope of a disease free future, the person’s attempt to regain control through a narrative only reveals the person’s helplessness in making pragmatic sense of a future that

\textsuperscript{72} Interestingly, in a special issue of Time magazine entitled, "How Your Mind Can Heal Your Body" an advertisement for Aricept (donezepil), a cholinesterase inhibitor that can sometimes postpone the advancement of Alzheimer’s disease symptoms, presented the drug as a simple restitution narrative. The ad features a mother, infant, and grandfather, with the grandfather kissing the infant. The thrust of the advertisement is clear and simple. It reads, "I love my life way too much to just hand it over to Alzheimer’s. When my memory started failing, I knew I had to see my doctor. He put me on Aricept. Now I’m doing better." At the bottom of the ad, however, small letters expose the truth of the narrative. "Individual responses to Aricept can be different—people may get better, stay the same or not get better." Time Magazine. January 20, 2003. Vol. 161, No. 3.
will be spent coping with the disease. Frank describes the chaos narrative as having a non-plot. One cannot follow the rubric of diagnosis, treatment, and subsequent recovery. Rather, each chaos narrative threatens the listener with glimpses of the anxiety and emptiness that the patients experience. Plot dissipates in the face of the impossibility of narrative sequence. In expressing the experienced illness through a chaos narrative, the patient struggles to objectively distance him/herself through reflection, as all patients do in describing illness. If a patient's narrative is chaotic, however, the mediation that distance affords is absent. The listener is disjointedly thrust into the overwhelming presence of the patient's suffering.

The chaos that the patient with Alzheimer's disease experiences lacks permanence. An overwhelming experience of being in the present will eventually constitute the entirety of the patient's lived existence. The plaques and tangles will prevent the patient from having a memory and understood anticipation of future events. The patient falls out of the typical temporal framework to which cognitively healthy people refer. Instead, the patient will know only each experience as it is lived in

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73 Frank, Pg. 102, 103.

74 Ibid, Pg. 97.
that moment. During his discussion of the embodied chaos of the suffering person, Frank speaks of the danger in a person's association with the body. The dualism that he promotes helps the patient cope with the physical suffering of the body—letting the person remain a 'me' despite the pain (objectified as an 'it') that the 'me' continually feels. Dissociation with the body would leave the Alzheimer's patient with very little. The body remains a constant in the patient's life, giving that patient some semblance of a referent when a lifetime of memory fades into a fuzzy stupor.

Personal accounts of Alzheimer's disease are rare, due to the nature of the disease. Often by the time a diagnosis is made, the disease has stolen the patient's ability to write any substantial amount. Thomas DeBaggio's narrative, Losing My Mind: An Intimate Look at Alzheimer's Disease, offers a glimpse into the agony of betrayal that the patient experiences and the attempt to understand the incomprehensible prospect of this future. The memoir is a disjointed account of a person in the early stages of the disease; he calls the book "balanced between the wonder of childhood and the

\[75\] Ibid, Pg. 103.
tottering age of memory.”  

He desperately clings to the memories of his youth, struggling to make sense of the prospect that he has been betrayed by a mind that can create no new memories and that is losing its grasp on the memories that are left. He describes himself as “suspended in time, hanging on by a rotting thread of memory.”

The thread weaves through his faltering short term memory thinly, in short vignettes, but he gives the audience evidence that the thick tapestry of his long-term memories are where he believes he must rest. The fleeting solace of the past gives way to a greater anxiety that those memories will waste away and that the life that remains will be “a life without a life.”

Without those memories what is left for Thomas or any other patient? He pragmatically realizes that a pathological deadline awaits these memories and they will soon be destroyed. He asserts: “I am in a hurry to preserve as many of these memories as I can, not because they are mine, but because all of them label and characterize the time of my life.”

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76 DeBaggio, Pg. ix.

77 Ibid., Pg. 59.

78 Ibid., Pg. 166.

79 Ibid., Pg. 32.
Readers can sense Thomas’ anguish at his uncertainty regarding whether he will maintain an identity, once he can no longer re-member his past. He therefore must construct one to which he can refer. In time, though, his constructed narrative will not matter to him; he will be unable to read or structure thoughts in order to comprehend what he wrote.

Other accounts from caregivers echo Thomas’ anxiety. Jaber F. Gubrium relays the words of one group facilitator speaking to a caregiver: “A person without a mind is just a piece of meat; only your memories keep you thinking of him as all there.” These statements testify to our inability to understand another’s being, as well as our total uncertainty about reacting to another’s mental decline. The facilitator, though, fails to accept his limitations in considering the other person. The facilitator cannot know the interiority of the patient any more than anyone can know the interiority of the facilitator. Considering the person only as a piece of meat assumes a knowledge that the facilitator just does not possess. The language of the facilitator commits an act of linguistic violence against the patient, reducing

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the patient to a piece of meat, rather than respecting the person's otherness.

Thomas, attempting to construct a meaningful account of his interior experience, describes his book project as 
"...a man's naked struggle with the unknown on his way to trembling silence and unexplainable torment without the torturer." In this assertion, Thomas makes several correlations that can be generalized and help to give explanation regarding the experience of living with the disease. His tortured description of the disease connects with the theft of the patient's voice. The mental pain, a connection of the physiological changes of the brain with the generalized anxiety of those changes, effectively destroys language for the patient, even before the tangles and plaques overtake the brain centers controlling language. Elaine Scarry's examination of political torture makes this point clear.

The Disease as Torturer

Elaine Scarry discusses methods and functions of torture. Through the act of torture, pain is constantly and unwaveringly inflicted. The moments in which pain is

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81 Ibid, Pg. 7.
imposed “actively destroy language, bringing about an immediate reversion to a state anterior to language, to the sounds and cries a human being makes before language is heard.”\textsuperscript{82} Only after the pain has passed can the person neutrally and linguistically reflect upon the pain. Even once the reflection commences, it can only be metaphorical. The wholly internal nature of pain precludes speaking about it in any truly objective sense.\textsuperscript{83} The act of torture prevents the pain from ever diminishing to a point at which that pain can be reasonably discussed. Through the constant process of pain, the tortured person can only focus upon the experience of the pain. His or her consciousness becomes intertwined with the feelings of agony. The persecutor steals the voice of the other, molding a new identity for him or her that is defined through pain.

Scarry uses the paradigm of political torture to demonstrate the unmaking of the prisoner’s world. The torturer may present information gathering as the motive of the torture, thereby using the infliction of pain only as a means of obtaining the prisoner’s secrets. In reality, the motive is not finding out secrets, because the prisoner would say anything in an attempt to vanquish

\textsuperscript{82} Scarry, Pg. 4.

\textsuperscript{83} Ibid. Pg. 8.
the horrific pain that he or she feels. The torturer’s motive was false from the start. The language of agency finds a fiction of power in an “obsessive, self-conscious display of agency.” It capitalizes upon the false power of pain through the torturous party’s infliction of pain, the objectification of the pain to those outside the body in pain, and the denial of the pain in order to translate the painful experience into power.

The torment moves far beyond just inflicting physical pain upon the body. The torturers expand their fictional power through the objectification of the dissolution of the prisoner’s world. The things comprising the world of the prisoner are turned into objects of torture. Products of civilization become weapons, deconstructing the prisoner’s perception of his or her former civilization. As the prisoner loses all means for regaining a sense of humanity, any health of consciousness disintegrates. The language that helped promulgate the consciousness of the person is rendered absurd; furthermore, the voice, lost in the body’s pain, betrays the identity of the person through its inability to speak the truth of the painful experience.

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84 Ibid., Pg. 27.

85 Ibid., Pg. 38.
Alzheimer's disease tortures the person, deconstructing the person's identity and unmaking his or her world of health. Like the political prisoner, Thomas and other people with Alzheimer's disease experience a world-shattering torment. With each new tangle or plaque that forms, the patient faces a new way in which part of his or her world becomes a weapon to upset and diminish the person's identity. Words and memories become obstacles for life, rather than means for living in society. Silence becomes the patient's false confession. To extend the metaphor, the silence that imposes itself upon the patient is the language of the pathological regime of Alzheimer's disease. The social constitution of language becomes another vehicle for pain, and thus another way in which the patient is betrayed.

When researchers name a disease, it gains a status and is afforded a type of value that makes it worthy of study. The disease acquires the label of something to be combated; Thomas DeBaggio mentions a different relationship with the named disease. The disease validates his worries, but he alludes that he can fall

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86 Scarry, Pg. 37. Scarry argues that when a tortured prisoner is forced to confess, the prisoner does not give a true confession, but actually speaks the language of the torturer's regime. The confession only shows the further ways in which the prisoner's whole language system is being stolen from him or her.
under the spell of the disease. By affording such status of the sign, DeBaggio worries that the disease will become the total referent in his life, thereby giving a sense of permission to the disease to continue its destruction.\textsuperscript{87} If this happens, then the disease may actually become the defining aspect of his identity. In becoming too conversant with the disease, DeBaggio worries that he will lose the ability to objectify the disease to the extent that he can remain separate from it. Without a sense of self to challenge the effects of the disease, it has carte blanche to overtake the person's ground of existence.

The grief that accompanies Thomas' awareness traps him. His own mind, understanding that a cognitively meaningless future that he can never comprehend awaits him, turns against him as another means to cause him pain. The beta-amyloid plaques and neurofibrillary tangles are deconstructing his memory, tearing apart his world along with his brain. He deals with their effects constantly as he struggles to write the book. His disjointed stories are broken into three sections: Alzheimer research, quick muses and lamentations about his "mind-clogged, uncertain present,"\textsuperscript{88} and longer

\textsuperscript{87} DeBaggio, Pg. 12.

\textsuperscript{88} Ibid., Pg. ix.
vignettes about his childhood. What may seem to be a stylistic literary device carefully illustrates the disorder that is going on inside of his brain.

The sense of betrayal brought about by Alzheimer's disease does not limit itself to only the patient. Once the body betrays the patient, then the patient's community experiences a betrayal. As the patient loses the ability to be autonomous, the patient's incapacities start to affect his or her immediate community. An Alzheimer's patient may exhibit suspicion and will definitely show signs of confusion and anxiety. While any illness affects the lives of a patient's loved ones, Alzheimer's disease touches the lives in a particularly significant way. Their reactions to these emotions can range from apathy to extreme agitation. Family members and friends must readjust their lives in order to give extended care to the person. The person becomes increasingly dependent upon the care of others, until they completely lose the ability to autonomously remain in-the-world. The changes in the person reflect themselves in changes in the person's closest community. Literature abounds concerning the responses to the burdens placed on the community. They must alter their

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89 The notion of being-in-the-world is attributed to Martin Heidegger. The next chapter will more fully examine his philosophy and its relationship to Alzheimer's disease.
homes to create a safe environment for patients; they must change their communication tactics in order to appease the anxiety that patients feel. The ‘regime’ of the disease thus extends its persecution to a patient’s community.\(^{90}\)

\(^{90}\) The social theories that reduce humanity to genes and emotions victimize a patient’s community along with the person. Research regarding disease takes on the language of the reductive social sciences that influence them. Thinkers like Dawkins, working in a framework of rationality, define the boundaries of rationality. As mentioned earlier, Dawkins projects agency upon genes, thus rationalizing the notion of ‘genetic consciousness.’ The power that Dawkins gives to genes validates the work of genetic researchers; likewise, the resulting findings fall within Dawkins model of gene perpetuation.
Chapter Three: Heidegger and Alzheimer’s Disease

"Being and non-being create each other."—Tao Te Ching

To Martin Heidegger, a human being is one who is concerned about his or her being. Our understanding of our own being-in-the-world separates us from other living creatures.\(^{91}\) By virtue of our subjectivity and grasp of the self as subject, we are held out into the unknown as Da-sein, grasping both our being as subjects and our own future nothingness after death. The Da-sein is always moving temporally towards death, the culmination and end of being. While death is a moment in the temporal framework, it is always the most extreme ‘not-yet,’ and can never fully be understood as an event.\(^{92}\) Rather, we are always working towards coming to terms with our encounter with death. The act of being held out into the nothing constitutes an omnipresent mood, rather than a single phenomenological encounter. This most fundamental of moods is angst, a feeling of generalized anxiety towards that which is primary in Da-sein’s relation to Being. Since no human can possibly know what the indefinitely definite end of Da-sein will entail, only a

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generalized worry can be focused upon it. To say that one would fear death would imply that the fear could be objectified, thus projecting an image upon death. As Heidegger explains, "Da-sein rather flees from such definiteness."\(^{93}\) The experience of death is entirely unknowable until dying has come and the being has passed into nothingness. Because of this incomprehensibility, objectification of the death experience is inauthentic, and a focused fear of death can never be correct.

The possibility of Da-sein's ending throws it completely into the dying process. As it is always being-towards-the-end, it is always dying.

Da-sein dies factically as long as it exists, but initially and for the most part in the mode of falling prey. For factical existing is not only generally and without further differentiation a thrown potentiality-for-being-in-the-world, but it is always already absorbed in the 'world' taken care of.\(^{94}\)

Thus, the whole process of dying is grounded in the care that the Da-sein receives. This care can be denied, though, and in this way, existence is rendered inauthentic. Through care, the self transiently relates to itself as Da-sein by acknowledging the potentiality of Da-sein, namely, the death of Da-sein.

\(^{93}\) Heidegger, Being and Time. Pg 239.

\(^{94}\) Ibid., Pg 233.
People relate to each other and the world through moods. Our encounters are by-products and results of the moods that spur on worldly relations. The elemental angst of Da-sein establishes the connection of people with one another. As we share the event of death in common, we also share our angst towards the death of our own particular being. We are always already moving towards death, but we also turn away from it, inactively pushing it aside as we go about our daily business. While we do not doubt our own mortality, we are never certain of what 'our own mortality' actually means. Not doubting and not being certain are not the same. Our lack of doubt is grounded in our everydayness, but our lack of certainty relates our angst more closely towards our potential nothingness.\footnote{Ibid., Pg 238.} Our everyday activities belie the possibility of death coming upon us in every moment. Indeed, death could happen in each and any one of our moments, but in all likelihood our own death will be sometime later, not this very instant. In other times, we authentically face our own morbidity through only fleeting moments of existential awareness. We participate in idle talk that postpones authentic contemplation of the nothing. Da-sein becomes lost in
the chatter of everydayness. By being thrown into the being-towards-death, Da-sein has no other choice but to continue to exist. So while the self may not accept it as something objectively present, Da-sein continues to exist as a being. Da-sein, resisting the self’s temptation to blanket the thought of death through idle chatter, calls us to pay attention to ourselves being held out into the nothingness. It ignores others who would insecurely call the self a coward for admitting its angst; the they continues to chatter, refusing to admit its own angst. Da-sein attests itself by forcing the self to realize the potentiality-of-being-one’s-self. Although the self may have denied it, the Da-sein continues to factically exist because it has not reached its potential. The Da-sein calls the self to actively choose to separate itself from the inauthenticity of living in the idle chatter of the ‘they’ and listen to the call of Da-sein, which makes itself known through conscience.

96 Ibid., Pg 118.
97 Ibid., Pg 250.
98 Ibid., Pg 255.
99 Ibid., Pg 235.
100 Ibid., Pg 248.
The self always knew its conscience, but by ignoring it, the Da-sein must remind the self by calling the self back to itself; therefore, it functions as both the caller and the called. This call speaks through silence, an uncanny mode that prevents the noise of chatter and distractions of everydayness. What does the silent call of conscience impart? It calls the self into discourse with the being of Da-sein, forcing a conscience which summons the self to attest to the responsibility of realizing its ownmost potentiality-of-being. By having a responsibility, it is implied that the self has incurred a debt of some form and the call reminds the self that it is guilty of not having rectified it. Da-sein’s guilt does not stem from an unpaid debt, which would imply that Da-sein could somehow rectify the debt. The guilt has a much more primordial basis. Guilt connects to death in the two’s shared relation to an unsurpassable lack. Death constitutes the lack of being, while guilt recognizes a nullity that defines Being as a “not”. In other words, the “not” provides the basis for which debts can arise. The relating guilt is anterior to any debt.\footnote{Carlson, Pg. 144.}

Heidegger also argues that the “primordial constitution of being of Da-sein is to be gained through care.” We are being-in-the-world in a relational care
with others, which grounds us in the world of beings. The subject is never worldless but always arises through being in the world with care. Our thrownness (gewarfenheit) into being does not change our definitive primordial constitution, however, which Heidegger identified negatively. We are thrown into the world, but the Da-sein is always already moving back towards the nullity that first defined it. Through care, the Da-sein faces its own nullity through its authentic relationship with death, its ownmost yet unprojectible potentiality.

The “not” that constitutes the primordial nature of Da-sein makes the awareness of the future reality of the nothing unsurprisingly impossible to describe. Of course we cannot know the nothing; as soon as we speak of nothing, it becomes something.\(^{102}\) Simply posing the question limits or negates the object of that question, for the nothing cannot be constituted as belonging in the realm of the being. One, therefore, could easily disregard speaking of nothing, rejecting it as a nullity and instead focusing on the ‘somethings’ that warrant phenomenological description. The disregard of talk about ‘nothing’ constitutes one of Heidegger’s criticisms of science. He critiques science by observing that it

"wants to know nothing of nothing."$^{103}$ By concerning itself only with the rational world, the world of 'something', science limits itself to that which is not primordial beyond cognition. Science posits its focus upon things, describing them in any fashion that at hand. Once the concentration moves beyond the rationally knowable, the scientific enterprise loses interest.

Alzheimer's Disease: Being-as-Nothing

"If the nothing itself is to be questioned...we must be able to encounter it."$^{104}$ Heidegger presupposes a relational cognition of oneself with the nothing. In the years since Heidegger wrote "What is Metaphysics?" science has had need to focus on a pathological phenomenon that relates to the nothing, both cognitively and non-cognitively. The devastating expression of Alzheimer's disease, the loss of mind and degeneration into an almost or often totally vegetative state, focuses that patient towards the nothing. Yet, Heidegger's criticism remains pertinent because while science has worked to understand the mechanisms of Alzheimer's disease, it still cannot empirically know or describe the

$^{103}$ Ibid., Pg. 84.

$^{104}$ Ibid., Pg. 86.
experiences of the patient as the disease manifests itself. This lack of interest in the nothing could perhaps be one of the reasons that science has had so much trouble in finding a viable treatment for the disease. This illness, discovered as a result of modernity’s innovations, has been foisted upon scientists as a disease concerning the nothing.

Paradoxically, science has been forced to examine what the nothing could entail. Science examines what can be rationally understood about the Alzheimer’s disease—a disease which has an aspect of the nothing incorporated within it. All symptoms of the disease reflect the impending nothingness that the patient will unreflectively live. Science has acknowledged the nothingness of Alzheimer’s disease, but still it works to describe most fully what is tangible and the disease. The hope of science is that by describing and understanding the mechanism of the disease, a treatment could be offered, both meliorating any need to face the nothingness of the disease and allowing us to turn away from Da-sein and back towards our everyday living. Science has continued to fail at this task, charging us to reface the disease and the affected patients. The disease causes a physiological breakdown of the very vehicle by which we understand our beingness as beings.
Heidegger’s critiques of science ring true in our present age of technological sophistication, but in examining a Da-sein’s authentic relationship with its ownmost potentiality of being, Alzheimer’s disease presents to us a powerfully unsettling prospect about the authenticity of existence as a Da-sein. Furthermore, and more troubling, in losing the ability to understand one’s own being-ness, one may cease to even remain a being, long before he or she experiences the event of death.

Technological advancements such as PET scans or psychological testing such as the Ordinal Scales of Psychological Developments (OSPD) have enabled doctors to diagnose Alzheimer disease in very early stages, when the patient still has a grasp of most of his or her mental faculties. This affords the Alzheimer’s patient the opportunity to face the nothingness that awaits him or her. With the diagnosis of any incurable terminal disease, the act of being-in-the-world drastically changes. The death event is brought to the forefront of thinking. Life is immediately authenticated. No more can death be pushed aside or ignored by way of everyday living. Angst towards the termination of being is simultaneously joined with a fear of the disease that has become the person’s ticket to the end his or her life. For example, a cancer patient is both painfully aware of
his or her proximity to the death event, and also has a
new object to fear. Cancerous cells become synonymous
with death, signifying an entity to fear even if death
itself can only be anticipated with angst. This example,
though, is bound up with the notion of a disease taking
hold of only the body, leaving the Da-sein to contemplate
the finitude of existence. The mind is not the primary
focus of the disease’s pathology. In Alzheimer’s
disease, the brain is the object of attack. The
progression of the disease inhibits the consideration of
existence. The mechanism of fear and angst cannot follow
the typical course.

A patient diagnosed with Alzheimer’s disease in the
eyearly stages has a limited amount of time in which he or
she can authentically consider the fear and angst related
to the Da-sein. While the patient may try to objectify
the disease by visualizing the plaques and tangles as
something to fear, the greater anxiety results from the
stunning realization that the unknown is steadily
fastening a grip upon his or her mind. As the patient
tries harder and harder to understand the unknowable
unknown, the more the phenotypic expression of the
disease prevents the patient from being able to objectify

\[105\] In this particular example, it is important to note that the
cancer would not be of the brain.
the fear surrounding the disease. Instead, the
generalized anxiety towards death becomes conflated with
a generalized anxiety towards the oblivion that is slowly
manifesting itself as it reconstitutes the patient’s
world.

Thomas explains the conflation of fear and angst
that he experiences:

There is a wide emotional difference between knowing
you will die one day in the future and living with
the knowledge you have a disease that slowly
squeezes the life from you in hundreds of unexpected
ways, and you have to watch it happen while those
who love you stand by unable to help you.¹⁰⁶

The patient, once thrown into the world of being and
being-with others, is now thrown into a world of nothing
or non-being. The world, which once related to the care
of Da-sein, now refers to the illness. As described
earlier, the patient’s understanding of his or her
relationship to the illness changes as the disease
advances. The disease deconstructs the patient’s world
over and over as the memory degrades. The patient, not
re-membering the world he or she lived in yesterday, must
retreat into his or her immediate new world construction.
This process happens countless times, as the person
continues to lose the memories that the person used in
constructing a past.

¹⁰⁶ DeBaggio, Pg. 87.
Torture throws Thomas DeBaggio into a new world-of-the-illness, one that simultaneously exists with his previous world of health. His narrative is not one filled with the idle chatter of someone who has ignored the call of Da-sein. In fact, as his awareness begins to diminish, the call to being grows more pronounced. Thomas faces his future with a heightened awareness of his own angst. He tries to objectify his fear, but repeatedly finds himself unable to express his feelings of grief and anxiety. The description of living with the unknowable unknown captures his unease about living with the unknowable unknown: "Getting used to the idea of dying is difficult, emotionally and physically, but what awaits me is losing the idea of dying and that is incomprehensible and at the same time it may be liberating." \(^{107}\) With that insight, DeBaggio then completely changes the topic of discussion. The remarkable clarity of his understanding passes out of his memory and the written conversation. At this point in the disease process, he retains a consciousness of being-in-the-world of others. He feels called to care for them for the limited time that he is still able,\(^ {108}\) but his consciousness also forces him to grasp the impermanence

\(^{107}\) DeBaggio, Pg. 18.

\(^{108}\) Ibid., Pg. 10.
of that reality. At the end of the memoir, Thomas tries to put himself in dialogue with both of his realities. He ends his book crying out to his wife for the care that he will not be able to reciprocate once he has faded into being-as-nothing. Wanting to stay in-the-world in which his Da-sein will find itself in the nexus of care, he realizes that he cannot predict this new world that is reconstructing itself around him.

On the immutably detrimental path of Alzheimer’s disease, the patient’s embodied illness moves progressively toward an understanding of nothing, knowledge of nothing, and a capacity to neither communicate nor function autonomously. Understanding becomes a phenomenon of nothing, because the patient has no comprehension of anything. But as Heidegger states, “The nothing is the complete negation of the totality of being; it is non-being, pure and simple.”109 Does the absence of something in the mind of the patient qualify as the complete negation of being in its totality? The patient continues to exist, but the being of the patient is projected by others who still realize that they are in-the-world. In the later stages of the disease, the patient displays no understanding of his or her own being-in-the-world. The primordial “not” that defines

the Da-sein may have been thrown into the world of care, but it can no longer maintain the responsibilities that accompany the guilt. The patient can no longer hear Da-sein's call to conscience yet the patient is not living in an inauthentic state per se. He or she does not participate in the idle chatter of everydayness, nor does he or she actively ignore Da-sein through the covering of its ownmost potential. In effect, the patient begins to realize the "not" while maintaining an existence in-the-world. The patient does not participate because the disease prohibits rational contemplation.

Da-sein speaks in the uncanny mode of silence, so linguistic capacity could theoretically be unnecessary, but cognition does seem to be a requirement for contemplating the nothing. While the patient may not be able to contemplate the nothing, he or she instead actively experiences it. But by experiencing the nothing, does it not become a something? The patient exists in a dichotomy that integrates the nothing with something, while allowing the two to remain mutually exclusive of each other. The something that remains is bodily; the functioning brain stem maintains involuntary processes. Beyond the bodily container remains the unknowable, the non-communicative patient who reveals nothing.
In a sense, nothing is what the patient moves towards, yet he or she is moving towards something. The patient still is being-toward-death, but he is also being-towards a nothing, an end that mirrors Heidegger's description of the end of Da-sein although the death event still lurks ahead. The something of the patient's existence is essentially nothing, but the Da-sein remains, continuing to call the person, although he or she may be unable to hear the call of silence. All sense of self is lost; only the most basic, functioning body is left. The angst initially considered applicable in thinking of the owmmost potentiality of Da-sein in death is reconfigured by Alzheimer's disease as angst towards the end of self: the being-towards an embodied nothingness. Anxiety towards death dissipates, as the person is already living in the realm of the "not," returning to a primordiality that the patient cannot readily express. As Thomas describes,

Alzheimer's sends you back to an elemental world before time, a world devoid of possibility and secrets. It is a world of insecurity where the certainty of words and the memory of events is unstable. It is a world of abject insecurity and tears of frustration.  

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110 DeBaggio, Pg. 89.
Community of Others

Men and women with advanced Alzheimer’s disease do maintain their bodily existence, but they depend heavily upon caregivers who continue to assist the patient in necessary quality-of-life maintenance. For example, as a patient loses the ability to control bladder and bowel functions, a caregiver must see to it that the patient stays clean and dry. When the patient loses the capacity to feed him or herself, the caregiver must oversee the patient’s nourishment. The person remains in-the-world, but is wholly dependent upon the care of others to support the most elemental of functions. Caregivers must feed, clothe, and clean the patients. Without that care, the patient would lie in his or her own waste, exhibiting an outward manifestation of the wasting mind. The patient’s understanding of the groundedness of being-in-the-world has been deconstructed by the plaques and tangles that have overtaken the patient’s brain and corrupted the person’s mind. Tortured by the disease, the patient has no capacity for functioning in the world of health that has been stolen from him or her. The patient can offer no care to the caregiver; he or she can only receive it. In fact, the patient must receive such care in order to remain in-the-world. The patient may
continue to exist in the world of others, but the disease commands the patient to close off, albeit unintentionally, his or her world to those others. The interior world remains unknown to the outsider, but all appearances suggest seas of confusion and oblivion.

Heidegger qualifies the nothing as non-being. All ways of describing being, though, involve an awareness that is absent in Alzheimer patients. By Heidegger’s definition, a human being is one who is concerned with his or her being. While this once may have been a concern of the Alzheimer patient, being does not concern the patient in the advanced stages of the disease. The Da-sein is held into an unknowable unknown that exists wholly separated from death. Like watching another’s death, we witness the effects of the disease on the patient, but once the patient loses linguistic capacity we know nothing of that patient’s experience. As far as any unaffected person can witness, the patient seems to know nothing of his or her experiences.

One of the conditions of Da-sein is its worldedness in care. The world of the Da-sein is prior to the Da-sein’s understanding of being in that world. By the time that being realizes that it is in the world, it is already there. Alzheimer’s disease strips the patient of its ability to care for others, yet care still maintains
the subject in-the-world. While the person cannot hear
the call of the Da-sein, the Da-sein remains, grounded
through the care of others.

The one-sidedness of the care-giver and patient
relationship reminds us of the Kierkegaardian reflection
upon truth and subjectivity. If being can be understood
empirically, and is always changing as it moves towards
its potential, then truth can never be absolute.\textsuperscript{111}
Truth, something to be attained, approximates the
becoming that the being experiences. One makes a
decision and defines a boundary in order to determine
what could be called ‘true.’ Through our own
assumptions, we attempt to come to a decision about what
constitutes ‘truth.’ The facilitator who labeled the
mindless patient as a piece of meat placed memory as a
boundary for the truth of self. Thomas DeBaggio,
however, is less certain about the boundaries of his own
identity. Exploring the interiority of the experience of
the disease, he can only speculate upon what a true self
could entail. Even as his world will undergo the
pathological changes of the disease, Thomas will not be
able to speak of them. The caregiver witnesses the
outward manifestations of the changes, but he or she

\textsuperscript{111} Kierkegaard, Soren. Concluding Unscientific Postscript to
Philosophical Fragments. Trans. Howard V. and Edna H. Hong.
knows nothing of the patient's interior experience. The caregiver can only speculate upon the 'true' nature of the patient's self. Thus, both the patient and the caregiver must accept the subjectivity of truth. The caregiver projects his or her own subjective idea of truth upon the patient. The patient may or may not even understand this criterion of truth; the outsider cannot know.

Conclusion

Alzheimer's disease deconstructs the present of the patient and robs the person of his or her future. In the end stages, the person also loses sense of the past. The plaques and tangles strangle the memories of the person's lifetime, yet the person remains embodied. Conceptions of the dualism between body and soul must be examined—the very idea of personhood comes into question. Descartes popularized the idea of the self as something separate from the body, and history's resulting technological advancements wasted no time in capitalizing on that dualism. The reductionism of science brackets the self and ignores it to focus upon the machine of the body. Stephen Sapp points out the irony of this distinction:
It is interesting that an age that claims to have moved beyond metaphysics...has arrived at a concept of the person that is thoroughly divorced from both the material body and the history of that individual's life. Indeed it is rather ironic that a society that prides itself on its basis in scientific method, that grounds its approach to truth in a basically reductionistic view....that has rejected the notion of timeless Truth in favor of relativity in nearly every aspect of human life...that such a society has arrived at a point where it in effect disregards the material and historical...in favor of some immaterial, essentialist notion of personhood.\textsuperscript{112}

The production of memories clearly relies on a body to experience them. When memory production has stopped and the person can no longer reflect on his or her own being, one wonders about the status of personhood. While that personhood cannot be communicated to others, we must continue to respect the patient as maintaining an unknowable potentiality for personhood. But our respect must not impose language upon the patient. As moral philosopher Edith Wyschogrod states, "When the historian speaks in the name of the other, she preempts the speech of the other, whereas if she remains silent the other is consigned to invisibility."\textsuperscript{113} The caregiver must stave off the patient’s invisibility through attention, but he


or she must take heed of the danger in speaking for the patient.

In healthy life the person with Alzheimer’s disease imparts experiences and memories upon the people who will carry on in the future. As the sick person becomes another that even he or she may not know, the community must listen to the new call that the other imparts. The community of the person assumes a responsibility to remember for the person.\textsuperscript{114} The community can reflect upon the patient in health, maintaining respect for the person as it preserves memories of the communicative person.

Through the torture of the disease, and the conflation of the patient’s fear and angst, the community of the Alzheimer patient assumes some of the patient’s initial anxiety. Of course, the death event is singular, but the community involves itself in the Da-sein’s dying process. By respecting the patient as one with an identity, the Da-sein remains grounded in the care that has defined its existence.

\textsuperscript{114} Ibid., Pg. 53.
Bibliography


