
Illuminating the
Twilight
Carol L. Rizzolo, PhD

Illuminating the Twilight

Carol L. Rizzolo, PhD

OBOOKO EDITION

The style used throughout this dissertation is in accordance with the MLA Style Manual and Guide to Scholarly Publishing (3rd Edition, 2008), and Pacifica Graduate Institute's Dissertation Handbook (2010-2011).

Table of Contents

Chapter 1

~ Introduction ~

> When [swans] perceive approaching death they sing more merrily than before, because of the joy they have in going to the God whose servants they are. Though indeed mankind, because of their own fear of death, malign the swans, and say that they sing their farewell song in distress, lamenting their death; they don't reflect that no bird sings when it is hungry or cold or suffering any other distress.
>
> - Socrates (qtd. in Plato, *Phaedo*)

> Those who have the strength and the love to sit with a dying patient in the silence that goes beyond words will know that this moment is neither frightening nor painful, but a peaceful cessation of the functioning of the body. Watching a peaceful death of a human being reminds us of a falling star; one of the million lights in a vast sky that flares up for a brief moment only to disappear into the endless night forever.
>
> - Elisabeth Kübler-Ross, *On Death and Dying*

The motif of storying by the dying recurs from the earliest known cultural mythologies and literature to the present day. King Gilgamesh, for instance, suffers the loss of his best friend Enkidu in an ancient Sumerian story inscribed in clay sometime between 2750 and 2500 BCE (Tablet VII). As Enkidu approaches his death, Gilgamesh sits by his side and listens to the narration of his friend. In ancient religious literature, the Old Testament Book of Deuteronomy is traditionally understood to be composed of stories told by Moses to the Israelites after God had informed him that he would die without ever setting foot in the Promised Land (Num. 27.13). In more modern times, *The Death of Ivan Ilyich*, by Leo Tolstoy, is one of literature's great examples of a man storying towards his death.

Gilgamesh bears witness to the dying Enkidu, the nation of Israel hears the words of Moses, and Gerasim attends to and witnesses Ivan's journey through the landscape of dying. Many works of literature focus on the wisdom found in the words of the dying, yet little research focuses on seeing through the stories to the depth psychological themes which emerge from the dying body in this physiologically unique state.

At the end of the life trajectory, the entire human being, both psyche and soma, are engaged in the dying process. In *The Psychoanalytic Century,* researcher Allan Schore explains: "From the beginning Freud posited that affective stimuli also arise 'from within the organism and reaching the mind, as a measure of the demand made upon the mind in consequence of its connection with the body'" (65). In his essay "Psychological Factors Determining Human Behavior," C. G. Jung writes, "The separation of psychology from the basic assumptions of biology is purely artificial because the human psyche lives in indissoluble union with the body" (*CW* 8: 232-262). In 1998, University of California researchers Marta Kutas and Kara Federmeier published an article in the *Journal of*

Psychophysiology titled “Minding the Body” in which they claim:

> Throughout human history, people in many cultures have sought to more fully understand the mind by understanding its relationship to the body. In so doing, philosophers and scientists have associated the mind with nearly every major internal organ. (135)

Kutas and Federmeier discuss the problem created when one begins to study the mind as a part of the brain without acknowledging that the brain itself is a part of the greater whole of the entire body. They write: “In the process of landing the mind in the brain, however, we sometimes appear to have forgotten that the brain is both responsive to and responsible for the body in which it is housed” (135). Using functional magnetic resonance imaging (fMRI) and positron emission tomography (PET scans), these researchers and others have demonstrated how “we take in information and interact with the world through our bodies, and our bodies change with - and in some cases change - cognitive and emotional processing” (135).

The Physiology of Dying

The human body is a complex biological system that is able to maintain life through a series of complicated metabolic processes. This homeostatic1 state includes a series of positive and negative feedback cycles integrated with each other and in communication with the rest of the body chemistry. A positive feedback cycle can be understood to be a system in which an increase in A leads to an increase in B, which leads to an increase in C, which feeds back to A and causes continued increase in A, such that A > B> C >A > B > C > **A >B >C** ad infinitum. In other words, a positive feedback cycle can be thought of as a physiological snowball effect. An example of a positive feedback cycle is milk production in a lactating mother. After the birth of a child, the body of a woman produces breast milk. As her child begins to suckle, the mother’s prolactin level, a hormone necessary for lactation, increases, thus increasing milk production and enabling the nursing mother to accommodate the increasing nutritional demands of her growing child. However, if the child was to stop nursing and the milk production of the mother were to continue to increase, a physiologically unchecked positive feedback loop would result, indicating that a pathological process was in play.

Fortunately, the body of a lactating woman, and indeed all human bodies, have negative feedback loops coupled to positive feedback loops. Thanks to this physiologic coupling, as the demands of the nursing child decrease, the production of milk by the nursing mother also decreases. The negative feedback loop responds to an increase in “A” with a biochemical system of checks and balances, causing A to either remain stable or decrease production. In this way, the level of A is maintained within a physiologically acceptable range for maintaining life. As in the above example, feedback cycles operate throughout the human body and the human life cycle and play a part at the time of dying. The homeostatic mechanism is a physiologic or *cellular* way of knowing, a cellular wisdom of sorts that exists in the body at a cellular level.

To maintain homeostasis, myriad negative feedback cycles within the body must be coupled with positive feedback cycles and; together, they must function in such a way as to sustain the life of the body. In his article “On the Dynamics of Dying,” physiologist Joseph Engelberg explains,

> Homeostasis is brought about by the network of negative feedback cycles that pervades hierarchical structure of every organism. While negative feedback cycles preserve constancy, positive feedback cycles threaten organismal survival since they tend to drive physiologic variables toward abnormally high or low levels. An organism can only survive, therefore, as long as the positive cycles that are latent within it are held in check. (144)

In other words, life can only be maintained if the positive and negative feedback cycles in the body maintain a state of balance. However, as Engelberg explains, in the time of dying the negative feedback cycles become less effective, allowing the positive feedback cycles to cycle out of control and ultimately push the body beyond its capacity to sustain life (145).

During the dying process, many people experience pain, shortness of breath, digestive problems, incontinence, skin breakdown, and fatigue. Writing for the *Merck Manual Online Medical Library*, Dr. Joanne Lynn includes depression, anxiety, confusion, unconsciousness, and disability in the list of signs and symptoms that may also occur during the terminal phase of a fatal illness. ("Symptoms"). Individuals who are not actively dying may experience many of these symptoms at different times over the course of their lifetime; however, medical professionals recognize that this constellation of symptoms in conjunction with a fatal illness often indicates the imminence of death.

Modern science has done much to delineate the physiologic changes that universally occur in a dying body. And the field of biochemistry can explain many of the chemical changes observed in a dying body. And yet as clear as the science may be regarding the biological and chemical manifestations of the body at the end of life, studies that focus on the integral nature of the mind and the body of a dying individual remain rare. Using the lens of modern physiology, this project will examine the stories told of the time of dying as they have been written and mythologized in literature over the course of human history. I argue that the stories told by those who are dying are both mythic and epic in scope and are nothing less than works of art emanating from a unique source, in this case the dis-integrating body. I will demonstrate that one's mind can be nothing other than completely involved in and affected by the myriad physiologic changes occurring as one's body closes down.

An Argument for the Epic Nature of End-of-Life Narratives

In his book, *Descent from Heaven*, Yale University Professor Thomas Greene explains that all action in the epic genre takes place in a particular setting and that the setting itself has agency on the action (11). He terms these background themes *arch-images*. In the same way that the storm in Homer's *Odyssey* affects the action of the story or the Trojan War affects the action of the *Iliad*, the arch-image is "the epic image in which scenery and symbol merge" (11). Greene explains that in the epic genre:

> [T]he characters, rather than remaining outside [the arch-image], are contained by it, help to define it, and indeed to comprise it. The arch-image becomes inseparable from the action it contains. The experience of whoever moves through it colors the image just as the image controls the experience. (11)

The physiologic process of dying creates such an arch-image within which one's

individual life trajectory comes to an end. Yet, while the terrain is shaped and defined to some extent by the location of the individual traveling through it (e.g. a hospital or a home), as well as by those individuals who accompany the dying individual on this journey, indeed, the dying individual and his or her entourage are being shaped in some way by the terrain through which he or she is traveling.

In her introduction to *The Epic Cosmos,* Founding Fellow of the Dallas Institute of Humanities and Culture Louise Cowan writes:

> If the determining form of a work is, as I am arguing, an inner disposition, there can be no prescribed structure for it, no privileged medium, nor any preferred external characteristics. In this sense, genre is not a logical category but an ontological image, a state of being, an ideal topography. Furthermore, one ought to be able to recognize it, as a world that one has stepped into in entering any literary work of art - and to find the recognition of the territory an aid rather than a hindrance to interpretation. (3a)

There is a reciprocity to the journey and this study explores and illuminates what informs and impacts the arch-image of dying in twenty-first century America. I argue, as Cowan does, that as with any work of narrative art, the recurring mythic and epic themes inform and aid those seeking to understand the twilight of life. There is much individuality in this journey, yet at the depth psychological level, this study shows that the time of dying has remained essentially unchanged for millennia and is, by nature, universal.

The Importance of this Study

In his work, *The Psychology of Death,* psychologist Robert Kastenbaum writes of the important role of psychological processes in dying:

> It is true that perception, cognition, motivation, instrumental and expressive behavior, and interpersonal relations have been subjected to increasingly refined investigation. But the relationship of these processes and of 'the whole person' to death has seldom been considered. (1)

People living and dying in the United States in the twenty-first century include a wide range of culturally diverse individuals. Indeed, data released in 2009 by The Hospice Foundation of America enumerates that in 2008 there were 46.7 million Hispanics living in the U.S., 41.1 million black residents, and 15.5 million Asians. These figures do not include the Muslim population or other religious and spiritual traditions that one is likely to find in this incredibly diverse land.

There is no doubt that minority populations are under-represented in literature and will likely be under-represented in this work. Acknowledging that I am not within a minority community should make it clear that this study has limitations; my perspective as well as access to translations is limited by my own shortcomings. To address this problem, this project will incorporate the writings of those whose work has been presented and discussed in the sixteenth annual *Living With Grief* ® teleconference presented by Hospice Foundation of America, the topic of which was *Diversity and End-of-Life Care* (April 30, 2009).

At no time in human history has the need for understanding "the other" been so urgent. Fear and aggression have, in many instances, become the rule of law. But death and the

religious practices which surround it have been a part of our shared humanity for millennia. Witness the Christmas Truce held on 24 December 1914, on a German battlefield in the midst of World War I. Although the truce was to honor the shared Christian holiday, it was a time when the opposing troops were able to give their fallen comrades a decent and respectful burial, even in the midst of war. This moment brings to mind the sacred text of the Bhagavad Gita - the importance of the pause before war and the importance of proper rituals attending the end of life. If only a small bit of understanding of America's global neighbors emerges from this work, then I will consider my research to have been a success.

Review of the Literature

Scholarly discussion regarding end-of-life narrative is scattered throughout several disciplines. This section includes academic scholarship from the natural sciences (e.g. medical literature) and the social sciences (e.g. philosophy, sociology, and psychology); distinctions between these fields blurs at the edges. Sherwin Nuland is a surgeon and a historian of medicine who has authored several books. Alan Mermann is both a physician and a minister. And of course, both Freud and Jung were both physicians and patriarchs of the fields of psychiatry and psychology. Although each field is considered to be a distinct area, an interdisciplinary approach to the study of dying is necessary to satisfactorily explain the many different voices involved in end-of-life dialogue.

Medical literature. During medical training, clinicians are taught to pay close attention to a patient's history. We are taught that 85% of the diagnosis can be made from the history alone. Yet, in current medical practice, there is little time allotted for careful and attentive history taking. In his book *How Doctors Think* (2007), Chair of the Department of Medicine at Harvard University Jerome Groopman writes, "Most doctors, within the first 18 seconds of seeing a patient, will interrupt him telling his story and also generate an idea in his mind [of] what's wrong"(17). Groopman argues that little can be learned from the patient when a clinician listens in this fashion (17).When the dying process occurs over time, rather than traumatically, the medical world is given the opportunity to study the particular nature of stories which emerge from actively dying patients.

Writing in the late 1960s, psychiatrist Elisabeth Kübler-Ross was a pioneer in the field of listening to the words of dying patients. Working in the Department of Psychiatry at the University of Chicago Billings Hospital, Kübler-Ross is among the earliest physicians to highlight the needs of the patients in the time of dying as being unique and specific to that time of life. In the preface to her seminal work, *On Death and Dying,* she writes of her extensive engagement with dying patients. Her work, she explains,

> is simply an account of a new and challenging opportunity to refocus on the patient as a human being, to include him in dialogues, to learn from him the strengths and weaknesses of our hospital management of the patient. (i)

This extraordinary statement implies how far the world of Westernized medicine had moved away from a patient-centered ethic by the mid-1960s.

Kübler-Ross challenges the medical profession to let the patient be "our teacher so that we may learn more about the final stages of life with all its anxieties, fears, and hopes" (i). The work of Kübler-Ross is considered by many to be foundational in the work of

end-of-life care. Her studies drew a great deal of lay public as well as medical attention.

As confounding as it may be for many to conceive, by the mid-1960s in the United States, it was indeed a radical notion in the medical world that the narrative of the patient was a necessary component of quality medical care. It was Kübler-Ross who began to bring into relief the universality of emotions and feelings she found to be present in both the dying individual and those traveling the landscape accompanying the dying person. She describes five stages of dying: denial and isolation, anger, bargaining, depression, and acceptance (38-137). In her work, she wrote extensively about the hope displayed by these patients and the important role of the patient's family in the dying process. Throughout her work, Kübler-Ross highlighted the importance of listening to the narratives of the patient.

Rita Charon, Professor of Clinical Medicine and Director of the Program in Narrative Medicine at the College of Physicians and Surgeons of Columbia University, writes, "By telling stories to ourselves and others - in dreams, in diaries, in friendships, in marriages, in therapy sessions - we grow slowly not only to know who we are but also to become who we are" (vii). Charon holds a medical degree from Harvard University and a PhD in English and Comparative Literature from Columbia University. In her book *Narrative Medicine: Honoring the Stories of Illness*, Charon describes Narrative Medicine as "medicine practiced with the narrative competence to recognize, absorb, interpret, and be moved by the stories of illness" (vii). For over two decades, Charon has lectured, taught, and written extensively on the relationship between literature and the practice of medicine. She explains:

Ultimately, narrative medicine may offer promise as a means to bridge the current divides between doctors and patients, between doctors and doctors, between doctors and themselves, illuminating the common journeys upon which we all are embarked. (viii)

The Department of Narrative Medicine is unique to Columbia University; however, the trend towards teaching physicians to listen more carefully to the narrative of patients is the essential focus of the work of physician Rachel Naomi Remen. Remen began her career as a pediatrician at Stanford Hospital. Currently, Remen is a Clinical Professor of Family and Community Medicine at the University of California San Francisco School of Medicine and co-founder and director of the Commonweal Cancer Help Program, a program which focuses on the healing nature of sharing one's stories during illness. In the 1960s, Remen worked extensively with mythologist Joseph Campbell, and later created a medical school curriculum entitled "The Healer's Art," a fifteen hour long course directed and taught by Remen to first and second year medical students. The course has several course goals, including the following:

> Trust the power of listening and presence to heal others.
>
> Develop greater comfort with death and the death beliefs of patients.
>
> Develop an expanded definition of death. ("The Healer's Art")

Objectives include:

> Experience the power of listening and being listened to.
>
> Share their unanswered and unanswerable questions about death.

Learn skills of grieving loss.

Recognize the power of death to clarify life values.

Identify personal qualities that serve dying patients.

Expand ideas about the physician's role in the area of death. ("The Healer's Art")

Originally created and taught in 1993, this course is now integrated into the curricula of over sixty medical schools around the world. In her article "A Revolution in Health Care," published in July of 1999 in *Shambala Sun*, Remen writes:

> For the past hundred years the goal of health care has been the curing of the body. Restoring the concept of healing to the heart of health care is no small thing. It requires rethinking the assumptions on which medical relationships are based, rethinking the goals of every health care interaction. It will require a revolution. (24)

Remen runs bi-annual workshops for medical clinicians with the intention of introducing the participants to the importance of the healing qualities of what Remen calls generous listening: "Generous listeners engage in conversation with an attitude of curiosity and attentiveness and are able to listen in a non-judgmental fashion. Doing so creates a space in which trust and openness of dialogue are encouraged to emerge" ("Listening Generously")

On June 5-7, 2008, I had the good fortune to attend a workshop designed for clinicians with Remen titled "The Healing Power of Story: Opening to a Deeper Human Connection." In a personal discussion of this project, Remen suggested that perhaps the soma of the individual becomes more transparent as one is dying, thus making the expressions of the psyche more visible.

In 1994 Sherwin Nuland, medical historian, surgeon, and professor at Yale University School of Medicine, published his book, *How We Die: Reflections on Life's Final Chapter.* As noted on the book jacket, in this work Nuland "offers a portrait of the experience of dying that makes clear the choices that can be made to allow each of us his or her own death." Nuland writes: "The greatest dignity to be found in death is the dignity of the life that preceded it. This is a form of hope we can all achieve, and it is the most abiding of all. Hope resides in the meaning of what our lives have been" (242). From Nuland's work, it is clear that both hope and dignity are essential aspects of the depth psychological themes integral to the landscape of dying. Nuland further attests:

"A promise we can keep and a hope we can give is the certainty that no man or woman will be left to die alone" (243). Loneliness is yet another one of the many emotions which adorns the landscape of dying.

The work of physician-researchers Allan Schore, Daniel Siegel, and their colleagues at the Mindful Awareness Research Center, based at the University of California, Los Angeles Medical Center, have made major strides in scientifically demonstrating the connection between the workings of the brain and the mind of the individual. Although this connection may seem self-evident, to date there has been a paucity of scientific support for this notion. Using arguments based in the embryonic development of the human brain and utilizing the most modern of medical techniques (e.g. functional magnetic resonance imaging2) these researchers have been able to identify the role of life

experience as it affects the development of the brain and thus the mind in an individual.

In his work, *The Mindful Brain,* Seigel explains:

> 'Experience' for the nervous system involves the activation of neural firing in response to a stimulus. When neurons become active, their connections to each other grow and supportive cells and vasculature proliferate. This is how experience shapes neuronal structure. (30)

This work is indeed groundbreaking in that these researchers have found academically valid and scientific proof to support Freud's contention that a mind/body connection exists throughout the body at a neuronal level. Seigel writes of a *neuronal3 plasticity* which exists in the brain, the ability of the neuronal structure of the brain to change in some fashion relative to one's bodily experience. His work supports the notion that the experience of living in a dying body exerts a neuronal influence on the brain and thus the mind of the dying individual. This runs parallel with my argument that the stories that emerge from the dying body are necessarily unique in that the stories emerge from a dying corpus.

Twentieth-century author Alan Mermann practiced as a physician for decades before becoming an ordained minister and chaplain to the Yale University School of Medicine. Published in 1999, Mermann's book, *To Do No Harm: Learning to Care for the Seriously Ill*, bridged the gap between the detached concern taught to medical students and the importance of spiritual engagement in the care of the seriously ill patient. Mermann writes, "During this past decade, questions about how we die increased dramatically. A topic considered taboo since the Victorian Age is now a subject of open discussion, theological pronouncement, ethical argument, and legislative debate" (9). Although it is clear that the discussion of dying has begun to enter into many circles, it is the experience of this researcher that there exists a cultural and universal resistance to entering into discussions about death and dying. Kübler-Ross and others address the prevalence of this resistance in Western culture. Cultural resistance is undoubtedly present in the arch-image landscape that defines the terrain of the dying.

Mermann explains that for the physician/patient dyad to work successfully, the two must understand the patient's frame of reference (12). In a medical article entitled "Reassurance," psychiatrist Neill Kessel claims: "The patient's terms of reference embody what he is actually going through and he will not be reassured unless he believes that the doctor is sensitive to, and understands, that" ("Reassurance" 1128, 1131). From this statement, one can add the theme of "being heard" to the list of mythic and epic themes which wallpaper the space-time of the dying vessel.

Thus far, the themes which can be shown to emerge from the field of medicine include the healing nature of telling one's stories and having one's stories be heard, as highlighted by Charon, Remen, and Mermann. The experiences of anger, isolation, denial, bargaining, depression, acceptance of one's own fate, hope, cultural resistance to discussions of death, and relationships to others (e.g. family, community, clinician) are each discussed in the work of Kübler-Ross and Nuland. The importance of respect for the dignity of the patient in the time of dying is especially highlighted in the work of Nuland.

Social Science literature. Sociologists Barney Glaser and Anselm Strauss's book,

Awareness of Dying, was originally published in the 1960s and re-released in 2005. While the medical community confronts death in a very personal way on a daily basis, Glaser and Strauss write:

> American perspectives on death seem strangely paradoxical. Our newspapers confront the brutal fact of death directly, from the front page headlines to the back page funeral announcements. Americans *seem* capable of accepting death as an everyday affair - someone is always dying somewhere, frequently under most unhappy circumstances. (3)

Although seemingly aware of death, there is a palpable hesitancy among Americans to discuss death or to actively plan for the inevitability of one's own death, and indeed the topic is often considered taboo. Glaser and Strauss believe, "Americans are characteristically unwilling to talk openly about the *process* of dying itself; and they are prone to avoid telling a dying person that he is dying" (3). This unwillingness is intertwined in the medical care of the dying patient. Nuland explains:

> Of the many ways to die alone, the most comfortless and solitary must surely take place when the knowledge of death's certainty is withheld. Here again, it is the "I couldn't take away his hope" attitude that is so often precisely how a particularly reassuring form of hope is never allowed to materialize. (243)

Nuland argues passionately for the importance of telling the dying patient that he or she is dying, yet the prevailing mythos feeds the taboo. Others in the medical field disagree as to whether or not to tell the dying patient of his or her imminent demise. Whether or not the patient is informed of or is indeed consciously aware of this imminence is not the subject of this project. Nuland asserts that left unaware of our own dying condition, "we cannot share any sort of final consummation with those who love us" (243). "Without this consummation," he argues, "no matter their presence at the hour of passing, we will remain unattended and isolated" (243).

As mentioned in the writing of physiologist Joseph Engelberg, most people can tell the difference between the four stages of healthy, ill, dying, and dead. Glaser and Strauss explain that the hesitancy around telling a patient that he or she is dying is, at least in part, "a moral attitude: life is preferable to whatever may follow it, and one should not look forward to death unless he is in great pain" (3). Unwillingness to discuss death can be quite problematic for the patient or the family of the dying patient. Glaser and Strauss highlight the lacuna as emanating from the training of medical students. "Medical students," they write,

> Learn to not kill patients through error, and to save patients' lives through diagnosis and treatment, but their teachers emphasize very little, or not at all, how to talk with dying patients, how - or whether - to disclose an impending death or even how to approach the subject with the wives, children and parents of dying patients. (4)

In his book review of "Awareness of Dying," published in 1966 in *The Annals of the American Academy of Political and Social Science,* Leonard Reissman, professor of sociology at Tulane University, writes:

> In the Preface, the authors report: "A group of eminent physicians hearing of our analysis before its actual publication . . . remarked flatly that sociologists have

> nothing useful to offer physicians." After reading this book, I must agree with the physicians. (202)

How extraordinary that in the second half of the twentieth century in America, engagement with dying process has been so completely relegated to the medical world. Given the somewhat obvious statement that death and the time of dying affects everyone in all walks of life, it is extraordinarily narrow-minded to insist that the work of caring for or assisting fellow humans through their dying processes be limited to trained medical professionals. Indeed, many literary examples describe many individuals from all walks of life caring for the dying. Reissman concludes his critique as follows:

> The authors obviously are dedicated and serious sociologists who are concerned with developing guides for those professionals who are regularly involved in living with the dying. Dedication, alas, is not enough. (203)

In 1972, Sociologists Richard Dumont and Dennis Foss waded into the discussion regarding the American way of dying. Although their work was done over thirty years ago, little has changed since they published their observations in their book, *The American View of Death: Acceptance or Denial.* They write:

> Twentieth century man prides himself on his ability to control his world; while he has exhibited substantial mastery over his physical and social environments, he cannot control his own death. True, he is currently able to delay it and to reduce its misery, but all of his cleverness and ingenuity have thus far been of no avail in eliminating it. (1)

Dumont and Foss continue: "The taboo on death conversation may be due in part to the somewhat superstitious feeling or belief that if we do not talk about something, it does not exist" (36). This book focuses a great deal of attention on the American denial of death and the many behaviors in society which attempt to make death and the dying process invisible to the living (37).

Fortunately, by the conclusion of the twentieth century, many scholarly fields felt compelled to add their voices to the discussion of end-of-life care. University of Calgary sociologist Arthur Frank authored several books on the subjects of illness and medicine. In his work *The Wounded Storyteller,* published in 1997, Frank explains that it is his goal to "shift the dominant cultural conception of illness away from passivity - the ill person as 'victim of' disease and then recipient of care - toward activity" (xi). He continues, "The emphasis of contemporary writing is less on the wounded storyteller than on the complementary figure of the wounded healer" (xi).

Frank turns away from the traditional focus of clinician as healer:

> As wounded, people may be cared for, but as storytellers, they care for others. The ill, and all those who suffer, can also be healers. Their injuries become the source of the potency of their stories. (xii)

Charon highlights the role of the physician in the healing process; Frank turns that idea around and stresses the healing of the caretaker by the patient: "Because stories can heal, the wounded healer and the wounded storyteller are not separate, but are different aspects of the same figure" (xii).

Through the image of the wounded healer and storyteller, the relationship between the dying storyteller and listener can be seen as an embodied yin/yang. Although the body of the dying storyteller is in a passive, or yin posture (often impaired in his or her mobility in this phase of life), the storying faculties of the patient can be quite active, or yang. The listener enters into the room exhibiting a yang aspect of mobility, yet as the listener he or she enters into yin, a passive and receptive posture that allows the listener to receive the stories of the other. Together, there is a deeply profound reciprocity that develops in this relationship. The dying individual is complete in living both a yin and yang aspect, while the listener is able to experience both as well. Indeed, I feel that together they create yet a third yin/yang relationship - the relationship between the story listener and the story teller.

Frank begins his book with a quote from Judith Zaruches, a woman who suffered with Chronic Fatigue Syndrome. She says, "The destination and map I had used to navigate before were no longer useful" (Zaruches, qtd. in Frank 1). Frank goes on to write, "Serious illness is a loss of the 'destination and map' that had previously guided the ill person's life" (1). He claims, "Stories are a way of redrawing maps and finding new destinations" (53). I would venture to say that the terrain of dying is indeed a time when dying individuals have lost their maps. The goal of this study is to provide a generic map of the terrain of dying - a map that is as basic as any road map might be. I argue that, although one may travel the road towards death in fair or stormy weather, the essential aspects of the landscape have remained unchanged since the dawn of time.

Frank writes, "The voice speaks the mind and expresses the spirit, but it is also a physical organ of the body. The mystery of illness stories is their expression of the body: in the silences between the words, the tissues speak" (xii). Frank proposes three types of narratives that emerge from the wounded storyteller. First is the *restitution narrative*, in which the plot or basic storyline is: "Yesterday I was healthy, today I'm sick, but tomorrow I'll be healthy again" (77). Frank explains that this type of narrative is filled with "reflexive reminders of what the story is about: health" (77). The second style of narrative that Frank has identified is the *chaos narrative.* He writes, "Chaos is the opposite of restitution: its plot imagines life never getting better. Stories are chaotic in their absence of narrative order" (97). The chaos narrative is one in which "the body is imprisoned in the frustrated needs of the moment. The person living the chaos story has no distance from her life and no reflective grasp on it. Lived chaos makes reflection, and consequently story-telling impossible" (98). It is easy to imagine the institutionalized dying individual as one so caught up in the chaotic and unfamiliar landscape as to be living in the prison described by Frank.

Lastly, Frank writes of *The Quest Narrative*:

> Quest stories meet suffering head on; they accept illness and seek to *use* it. Illness is the occasion of a journey that becomes a quest. What is quested for may never be wholly clear, but the quest is defined by the ill person's belief that something is to be gained through the experience. (115)

The literature of sociology has added Frank's three narrative styles to the landscape of the dying. Dumont and Foss add the theme of societal fear and the societal taboo regarding discussions of death and dying to the terrain of dying. As the dying individual travels this

landscape, he or she interacts with and is changed by the landscape as the landscape interacts with and is changed by the traveler. So, to the themes within which one is dying in modern America, one must add the themes of societal fear and taboos regarding death, as well as Frank's three narrative styles.

Depth Psychology literature. Sigmund Freud, a pioneer in the field of depth psychology, was a neurologist with extensive training in biology and physiology prior to focusing on the workings of the human mind. In his book, *The Psychoanalytic Century: Freud's Legacy for the Future*, Director of the International Psychotherapy Institute David Scharff writes, "[Freud's] theory of the biological basis of mind was first developed in 1895 in the unpublished *Project for a Scientific Psychology*" (xv). Published as chapter 7 in Freud's *Interpretation of Dreams*, Freud claims:

> All our psychic activities proceed from (inner or outer) stimuli and terminate in innervations. We thus ascribe to the apparatus a sensible and a motor end; at the sensible end we find a system which receives perceptions, and at the motor end another which opens the locks of motility. (426)

Freud hypothesizes, "[T]he psychic apparatus must be constructed like a reflex apparatus. The reflex act remains the model for every psychic activity" (426). He suggests that all psychic activities have their basis in the neurophysiologic workings of the body. In his work, *Beyond the Pleasure Principle*, Freud writes of the aim of death as the goal of every living being:

> For a long time, perhaps, living substance was thus being constantly created afresh and easily dying, till decisive external influences altered in such a way as to oblige the still surviving substance to diverge ever more widely from its original course of life and to make ever more complicated *detours* before reaching its aim of death. . . . (38-39)

Freud argues: "What we are left with is the fact that the organism wishes to die only in its own fashion" (39).

In twenty-first century America, in a world where the medical world seeks to isolate and control all aspects of the dying process, one wonders where the instinct to die in one's own fashion can be found. I argue that the stories told by dying patients are the place in which the patient, who is often immobile and physically at the mercy of others, has the power of psychic expression to die in an individual way - if one is willing to listen to the stories told. In true interdisciplinary fashion, the ability to listen enlists the work of sociology, medicine, and depth psychology to hear and understand the stories being told in this unique physiological state.

Max Schur, Freud's personal physician and close friend, shared the passionate belief that the body and the psyche are intimately intertwined. In an article published in the *American Journal of Psychiatry* in 2002, physicians Stephen Wittenberg and Lewis Cohen write that Max Schur's "pattern was to find opportunity in adversity, explore new areas in psychiatry and medicine, and champion the crucial connectedness of psyche and soma" (216).

C. G. Jung also wrote and argued strongly for the interconnectedness of psyche and spirit to soma. Trained as a psychiatrist, Jung became the founding father of the Jungian school

of analytical psychology. Writing extensively in the first half of the twentieth century, Jung explored the mind-body connections in the time of dying in a different way. He states clearly that he believes there to be no other option than for the psyche to be intimately tied in some way to the body. Regarding the inevitable telos of the life trajectory, in his essay entitled "The Soul and Death," Jung writes:

> Life is an energy-process. Like every energy-process, it is in principle irreversible and is therefore directed towards a goal. That goal is a state of rest. In the long run everything that happens is, as it were, no more than the initial disturbance of a perpetual state of rest which forever attempts to re-establish itself. Life is teleology *par excellence*; it is the intrinsic striving towards a goal, and the living organism is a system of directed aims which seek to fulfill themselves. (*CW 8*: 798)

Jenny Yates has compiled many of Jung's writings on death and dying in her work *Jung On Death and Immortality.* She begins her book with the following quote:

> Death is psychologically as important as birth and, like it, is an integral part of life. . . . As a doctor, I make every effort to strengthen the belief in immortality, especially with older patients when such questions come threateningly close. For, seen in correct psychological perspective, death is not an end but a goal. (Jung, qtd. in Yates 3)

Writing in the Foreword to the Marie-Louise von Franz's book *On Dreams & Death,* Jungian Analyst Emmanuel Kennedy-Xypolitas explains that Jung believed dreams which emerge from the time of dying are in some way unique in the trajectory of human life:

In 1948, C. G. Jung sketched out a picture of the future development of analytical psychology, which he saw as an attempt to formulate "a scientific psychology" based upon immediate experience with human beings. To the list of possibilities for further investigation, he added the task of collecting and evaluating death dreams, that is, dreams occurring before accidents, illness, and death, as well as during severe illness and narcosis. (vii)

Von Franz explores the dreams of death and dying in her work *On Dreams & Death*.

In 1978 she published an article in *Quadrant* titled "Archetypes Surrounding Death." In this article, von Franz discusses archetypes in the dreams of the dying (e.g. felling of trees and cutting of wheat) which appeared in some way to be predictive of the impending death of the individual. She closes this paper with a dream of her own which she dreamt as she was coming to the end of writing. Von Franz describes that "mist closed in again and you could see no more" (22). She writes:

> I feel that that is just what I have tried to convey to you in this paper: just a few glimpses of an utterly unknown country which is covered for us with mist for most of the time as long as we still live in the body, but of which one gets from time to time amazing glimpses. These glimpses seem to confirm Jung's view that the process of individuation is also a preparation for death and that the latter is not an end but an amazing transformation of some kind. (22)

Jungian analyst Jane Hollister Wheelwright wrote the book *Death of a Woman,* giving an extensive account of her own psychotherapeutic work done with a woman who was dying

of cancer. In the author's note, Wheelwright explains that her book was based on work she had done with a patient in the early 1960s, yet it was not published until two decades later. Wheelwright opens the book with an explanation of this delay by explaining the nature of the psychologically taboo subject of death in the earlier days within the psychotherapeutic community. She writes, "Only within the last decade has there been a widely recognized effort among psychotherapists to help terminally ill patients face death and to be psychically up to date when they die" (7).

Wheelwright's work with Sally broke many techniques of conventional psychotherapy (7), and by doing so, Wheelwright was able to enter into a therapeutically healing relationship with her patient in a way that allowed Sally to live to her death, to explore her world from within her dis-integrating body. Wheelwright was able to act, in some ways, as a mythic threshold figure and guide for Sally in the terrain of the dying. As Gilgamesh did for Enkidu, Wheelwright remained emotionally by Sally's side throughout much of Sally's dying process. In her book, Wheelwright extensively explores and discusses the depth psychological themes which emerged in Sally's dreams. These themes will be discussed later in this dissertation, in the chapter on dreams.

In his seminal work, *The Psychology of Death*, published in 1972, psychologist Robert Kastenbaum explicates the presence of fear in the dying process and the role it plays in the process:

> There is reason to believe that important differences exist in the "object" or "stimulus" of death fear. Philosopher Jacques Choron has offered a particularly cogent analysis of death fear and related topics. As a part of this analysis, he distinguishes three types of death fear. One may be afraid of a) what comes after death, b) the "event" of dying, or c) "ceasing to be." (44)

Kastenbaum continues to reassure his reader: "Of course, one does not really have to choose among these fears; we can have them all, or in any combination" (44). In addition to fear, Kastenbaum adds the themes of death anxiety, sorrowing, overcoming fear and anxiety, and participating to the psychological factors in play when one "faces the thought of death" (101).

Robert Bosnak, in his 1989 work, *Christopher's Dreams: Dreaming with an AIDS Patient*, describes in painful detail the embodied dream work that he engaged in with a patient who was diagnosed with AIDS soon after the beginning of the therapeutic relationship. Bosnak gives transcripts of the dreams and discusses them in detail in the work:

> In a life threatening illness, the resistance to a direct, stark awareness of one's condition is often stronger than the ability to remain conscious of what is going on with us emotionally. . . . Dreamwork provides a rare window into the depth of the soul where unacknowledged feelings live their unexamined life, profoundly influencing everything we experience in our day-to-day existence. (vii)

Bosnak describes his book: "It tells the story of a man with a deeply Christian love of God in his heart, at odds with his church, searching for solace and meaning" (viii). The deeply psychological and epic theme of searching for solace and meaning is yet another theme that paints the terrain of the dying.

From Bosnak's work, one can conclude that there is no question that there is a great deal of insight to be gained from studying the mythemes and epic themes which emerge in the form of story and dream from the dis-integrating body. Bosnak maintains:

> Anyone who has followed someone through illness or in their dying days knows that as the spirit goes, so goes the body. In the face of a dangerous illness, strong spirits - not, necessarily, feeling good - are usually a necessary condition for experiencing existence as valuable, and not just as meaningless torture. (viii)

Bosnak stayed by Christopher's side for as much of the dying process as he was able. Neither Bosnak nor Christopher was traveling this landscape alone. The book is the story of Christopher's life and his dream world as he traveled the landscape, accompanied by a guide brave enough to stay by his side throughout the journey, towards the inevitable horizon of death. This work will be re-visited in the chapter on dreams of the dying.

Irvin Yalom, MD, Professor Emeritus of Psychiatry at Stanford University, has written extensively on the topic of death and dying. In his book *Staring at the Sun: Overcoming the Terror of Death,* Yalom argues that

> [s]elf-awareness is a supreme gift, a treasure as precious as life. This is what makes us human. But it comes with a costly price: the wound of mortality. Our existence is forever shadowed by the knowledge that we will grow, blossom, and, inevitably, diminish and die. (1)

In their book *Myth and the Body*, physician Stanley Keleman and mythologist Joseph Campbell speak of the song of the body. Campbell writes: "Mythology is a song. It is a song of the imagination, inspired by the energies of the body" (xiii). Keleman adds:

> For me, mythology is the poetics of the body singing about our cellular truth. Myth is a poem of the experience of being embodied and of our somatic journey. It is the song of creation, the genetic experience that has organized a way to sing, to dance, to paint, to tell stories that transmit that experience to others. (xiii)

I argue that the end-of-life narratives which emerge from dying individuals are nothing less than mythopoetic singing, or what Keleman calls *the song of creation* (xiii), creating an epic cosmos all their own, and deserving of a place of honor and respect in our cultural repository.

This project describes the landscape of the dying, the terrain which we must all travel as our individual lives come to a close. It is my hope that by studying the mythic and epic themes which emerge in end-of-life narratives, the reader will have more information to add to the interdisciplinary discussion regarding the terrain of dying.

Organization of the Study

Beginning with a discussion of the epic nature of end-of-life narratives, chapters are organized in temporal fashion, highlighting the time of dying as it has been imagined in extant literature dating from 2750 BC to the present day. Due to the enormous quantity of material, I have narrowed the project to focus particularly on the themes that inform the time of dying in twenty-first-century America.

-Chapter 2, "Epic Poiesis in the Stories of the Dying," establishes that the stories told by dying patients are epic in nature, constellating an entire cosmos that is recognizable as

belonging to the archetypal realm of dying. To make this argument, I compare and contrast the relationships between stories told by those who are dying and four epic works of fiction: *The Odyssey* by Homer, *Moby Dick* by Herman Melville, *Beloved* by Toni Morrison, and most extensively *The Gilgamesh Epic*.

-Chapter 3, "Angels, Time, and God: What we can learn from the Abrahamic Faith Traditions," begins the exploration of ancient stories which more directly inform the time of dying in twenty-first-century America. Through an in-depth analysis of the ancient text *The Testament of Abraham*, this chapter explores the end of the life of the patriarch of the Old Testament as it was imagined in the first century AD. Abraham is significant in that he is recognized by each of the three Abrahamic faith traditions (Judaism, Christianity, and Islam) as modeling the ideal man. Thus, one can recognize that his dying process informs many of the religious practices carried out in modern day America.

-Chapter 4, "A Study of the Neuroscience of Fear and Compassion: the Landscape of Dying Seen Through a Buddhist Lens," continues the theme of dying in twenty-first-century America. The very earliest roots of the widespread practice of Buddhism are based in the experiences of the young prince Shakyamuni as he observes aging, disease, and death. This section explores the neuroplastic nature of the brain and demonstrates the ways in which Shakyamuni was able to use meditational techniques to alter his relationship to senescence and death. The next section of this chapter highlights the age-old Japanese tradition of writing poetic verses moments prior to one's own death. This stylized art form known as *jise*i has existed for over one thousand years and is widely available in the popular press. A study of jisei gives the modern reader insight into the ways that Japanese culture conceives of and honors the time of dying. The final section of this chapter describes the ways in which the architecture of a traditional hospice building in Branford, Connecticut encourages the acceptance of dying as a natural event. The placement of the building on the seashore and the liberal use of windows in its architecture bathe those who enter in a calm acceptance of the end of life as a natural and beautiful time, an acceptance of death that is inherent in the Buddhist tradition.

-Chapter 5, "End of Life Dreams: An Examination Of The Relationship Between The Sleeping Body, The Dreaming Mind, And The End Of Life," takes the reader away from the stories of great beings such as Gilgamesh, Abraham, and the Buddha and explores the end-of-life dream experiences of common men and women. This chapter establishes the fact that human physiology has remained essentially unchanged since the earliest extant dream recordings and contends that there is value to be found in explication of end of life dreams ranging from antiquity through to modernity. Through the study and comparison of thirty end-of-life dreams, this chapter identifies imagistic and interactional themes which are unique to end-of-life dreams.

-Chapter 6, "The Voices of Children," uses the story of a young boy dying of leukemia in a midwestern hospital in 1975 to demonstrate the reciprocity between a child's physiology and his experiences and emotions. This chapter closes the project by reminding the reader that our society has a long way to go to improve end-of-life care for terminally ill children.

A Brief Restatement of the Problem

A great deal of medical and social science research focuses on the healing nature of

narrative during illness. Physicians explain to other physicians how they might become better listeners in order to provide better medical care. Caregivers explain to other caregivers how they might provide more comfort when dealing with the chronically ill and dying. Religious literature focuses on passing on religious wisdom that might otherwise be lost to future generations. Each of these disciplines is an aspect of caretaking the dying, caretaking the caretaker, and caretaking religious traditions. Although each of these fields captures an important aspect of the dying process, there continues to be a paucity of interdisciplinary literature focusing on the act of narration during the time of dying. Using mythic and epic themes, this study seeks to elucidate the depth psychological nature of the narrative which emerges at the end of life. I argue that a study of the creative narrative process, the process of myth making which emerges from the dying patient lends significant insight into this enigmatic time of life and that illuminating the twilight of life in this fashion will improve end-of-life care as it is experienced in our society.

Discussion

It is my experience that clinicians write for clinicians, and the bereaved write for the bereaved - each writing as though the dying person were merely a passive participant in the process of his or her own dying. Although inactivity may accurately describe the state of the body at this time of life, I argue that the psychological process in the dying person may be quite active and is able to find expression in the narrative process. I argue that a study of the narrative poiesis which emerges from the dying patient lends significant insight into this enigmatic time of life and that illuminating the twilight of life in this fashion will improve end-of-life care as it is experienced in our society.

Chapter 2

Epic Poiesis in the Stories of the Dying

> So, I must go beyond this natural faculty [bodily life] of mine, as I rise by stages towards the God who made me. The next stage is memory, which is like a great field or a spacious palace, a storehouse for countless images of all kinds which are conveyed to it by the senses. In it are stored away all the thoughts by which we enlarge upon or diminish or modify in anyway the perceptions at which we arrive through the senses, and it also contains anything else that has been entrusted to it for safe keeping, until such time as these things are swallowed up and buried in forgetfulness.
>
> - St. Augustine, *Confessions*

Each week, I have the honor and the privilege of going to a local hospice to spend an afternoon. Although my medical background is woven into the fabric of my being, my role at the hospice is not that of a medical caregiver. My role there is officially a researcher and story listener. What I do in that afternoon is listen to and record the stories of the dying. The stories are recorded digitally, compact discs are created which contain the stories, and the finished product is then returned to the patient and his or her family. Regardless of the background of the patient, in our time together the patient becomes a storyteller and I a rapt listener.

Each story from hospice is a poetic expression of the life of individuals as they look back and re-member themselves. Often, the story told is of the person they once were, the person they were before the day when they learned that their life would soon draw to a close. The epic poiesis of the human mind is strongly in evidence as these people weave their stories into the world, and in doing so, re-weave themselves into their own memories as well.

Umberto Eco, in his book, *Six Walks in The Fictional Woods*, writes of the charm and value of taking the time to linger in "the fictional woods":

> There are two ways of walking through a wood. The first is to try one or several routes (so as to get out of the wood as fast as possible […]; the second is to walk so as to discover what the wood is like and find out why some paths are accessible and others are not. (27)

Eco describes the model reader as one "who wonders what sort of reader that story would like him or her to become and who wants to discover precisely how the model author goes about serving as a guide for the reader" (27). In story collection, it is necessary to replace the word *reader* with the word *listener*.

In his essay entitled "Psychology and Literature" C. G. Jung writes of the importance of letting "a work of art act upon us as it acted upon the artist. To grasp its meaning, we must allow it to shape us as it shaped him" (*Spirit* 105). The listener must be willing to

yield to and enter into the meandering nature of the stories to be able to engage with and experience the beauty of the meandering nature of the memories themselves. It is the beauty of the woven tapestry of memories, of Mnemosyne herself, which shines through as these stories are combined and expressed.

Appreciating the epic nature of the combined stories requires the listener to enter Eco's fictional woods, without a care for the historical accuracy of the story told. Toni Morrison writes that her goal in creating fiction is "to urge the reader into active participation in the nonnarrative, nonliterary experience of the text, which makes it difficult for the reader to confine himself to a cool and distant acceptance of the data"

("Memory" 214). When viewed as a nonliterary experience, one is able to appreciate the hospice stories for the artistry created when the stories are spoken. Morrison writes, "When one looks at a very good painting, the experience of looking is deeper than the data accumulated in viewing it" (*Anatomy* 215). The experience of listening to the storied word bears witness to and makes sacred the work of epic cosmopoiesis.

In his essay, "The Narrative Play of Memory in Epic," published in the anthology *The Epic Cosmos*, Dennis Slattery writes of the role of narration and memory in epic:

> Th[e] action of storying and thereby storing one's history, be it personal or collective, may be, within the epic tradition, the surest safeguard against the onset of a cultural amnesia that threatens the existence of the goddess Mnemosyne herself. ("Narrative" 331)

Hospice stories, in conjunction with the setting in which they are told, have extraordinary power. They are the fiction which makes visible the inter-relatedness of the storyteller's memory to his or her own lived experience. Respectful engagement with Mnemosyne creates a space where the storytellers are able to re-weave themselves into their memories, while at the same time exploring and creating images of their lived experience. Slattery writes:

> Epics comprise the genre that is perhaps most memorial, most mythic, and most modern in that they poetically remember the ideals of a people's past as well as thrust them toward the future, towards the continual unfolding of their myth. The myth of a people and of a person serve to organize one's life, give priority to one's values and to instill in one "a blind hope," as Prometheus calls it, toward the future. (Syllabus, Epic Imagination)

As hospice patients begin to weave their stories, an implied Odysseus enters the room. From the Odyssean twist and turns of a lifetime to the more recent Odyssean twists and turns in their adventures through the medical world, these people are often both wily and creative. Like Odysseus, many patients still have their memories as well as a deep desire to engage with their past memories in a real-time relationship with one who is willing to take the time to listen. In the collection of the stories told one is able to "see through" to the epic structure that creates our humanity. At the same time, one is able to see through to the essential human experience which creates the structure of the epic cosmos. These stories are what Toni Morrison describes as the "piece[s] of the galaxy" (*Anatomy* 214). She writes:

> The pieces (and only the pieces) are what begin the creative process for me. And the

> process by which the recollections of these pieces coalesce into a part … is creation. Memory, then, no matter how small the piece remembered, demands my respect, my attention, and my trust. (*Anatomy* 214)

In his essay entitled "Psychology and Literature," Jung describes the artistry which one witnesses as these people tell their stories:

> It makes no difference whether the artist knows that his work is generated, grows and matures within him, or whether he imagines that it is his own invention. In reality it grows out of him as a child its mother. The creative process has a feminine quality, and the creative work arises from unconscious depths. (*CW* 15: 102)

Listening to what emerges in the stories of the dying feels like bearing witness to one of the greatest acts of artistic poiesis created by individuals in relation to the greater collective humanity. One cannot help but be moved by experiencing in the present the human achievement of epic-poiesis. Jung writes: "A great work of art is like a dream; for all its apparent obviousness it does not explain itself and is always ambiguous" (*CW* 15: 104). Approaching these collected stories as one great narrative, the work of art created expresses an extraordinary and stunning piece of the human experience.

The deeply moving nature of the hospice work is present by virtue of bearing witness to the dying. This, along with exquisite artistry in the woven stories, leads to the exploration of the question of what it is about this collection of stories that makes the collection "epic." Louise Cowan in her "Introduction" to *Epic as Cosmopoiesis* believes of the epic genre:

> [T]he imaginations redemption of history depends on a critical reconception of the purposes of epic and a constant effort to recognize it in unlikely situations and in sometimes inchoate form. Epic has traditionally been considered so monumental and grand a mode of poetic expression that literary authorities have dared make few official additions over the years to the fixed Homer-Virgil-Milton pantheon. (1)

The stories told are in no way composed in the conventional form of a narrative epic. Traditionally, the epics are told in a single voice. It is the multiplicity of voices in the hospice population which creates the epic nature of the collection. Cowan continues:

> If the determining form of a work is, as I am arguing, an inner disposition, there can be no prescribed structure for it, no privileged medium, nor any preferred external characteristics. . . . As for epic, a work should be identifiable as belonging to that category, whatever its medium, length, or style, when what can be observed from within it activates a full and complete cosmos. (3)

As this study will demonstrate, the hospice stories, when viewed as one, represent an epic cosmos of mankind. Inchoate as the composition might be, the stories activate an understanding of Cowan's "full and complete cosmos."

In her book, *The Implied Spider: Politics and Theology in Myth,* Wendy Doniger writes of the web of a "shared humanity" (61). Of the implied spider she writes it is "the shared human experience that supplies the web-building material, the raw material of narrative to countless human webmakers" (61). As the listener and recorder of these stories, I work as Doniger's silkworker, "harvesting the cocoons of the silkworms" (61). The strands of silk are woven into a beautiful fabric; the stories are made visible, and it is the stories

themselves which create the woven fabric of my relationship to the patient. But it is also the work of the implied spider to weave the web from the patient to his or her inner world, and down into the realm of memories.

The stories are the products of an individual psyche as it interacts with the personal memories of the story teller within the context of a cultural and collective memory. These stories are a collected work of historical fiction, told by those who are actively dying. The historical accuracy of the memories told is unimportant. Whether these events actually took place in the way they are being re-membered is not the artistry of the collected work. Much like Toni Morrison's memory of Hannah Peace, the created memory is the act of cosmopoiesis ("Memory" 213-14). The stories told in this hospice work are an oral text, not written literature. They are, in a sense, the pre-text to a work of epic cosmopoiesis.

Mnemosyne is present in many of the great epic creations. Homer creates a story in which it is Odysseus's memory of Penelope that drives him forward in his quest, and it is her memory of him that gives her the strength to keep the suitors at bay. In Melville's *Moby-Dick*, the entire epic springs forth from the memory of events given to Ishmael by the author. And in Morrison's work *Beloved*, Beloved herself is born of the memories of her mother. In his book entitled *The Anatomy of Memory,* James McConkey writes of the importance of memory in Toni Morrison's epic work *Beloved.* McConkey writes, "Of her novels, *Beloved* is the one in which memory is so important that it becomes, indeed, subject. Beloved, the title character, is created out of memory itself" (*Anatomy* 212). An implied spider weaves a relationship between the memories of the characters and their cultures, while at the same time weaving the protagonist to their own personal memories.

Like Odysseus when he reached the island of the Phaeacians, the hospice patients have been stripped of their clothing as well as of their identity and their worldly goods. In his essay entitled "Odysseus in Phaeacia," Chair and Associate Professor of Greek and Latin at the University of Mississippi Edwin Dolin writes that Odysseus lands "almost dead, on the beach of Scheria" (383). Hospice patients arrive at the door of the hospice in much the same condition. By the time of their admission, they have traveled many unfamiliar lands; they and their physicians have tricked the Cyclops, escaped the dangers posed by Scylla and Charybdis, and escaped the Lord of Death. Like Odysseus, they arrive at the door having been relegated to the world of the "almost dead." Of Odysseus, Dolin writes: "He is a wanderer, alone in a foreign land, with no resources except his brain and his tongue" (383).4 I argue that this description of a man stripped of all of his worldly goods could well describe a hospice patient as he or she is approaching the journey in the final weeks of life, in preparation for the final return home.

The stories themselves are varied. One black man tells his memory of a man of color being raised in the American South in the early 1900s. A white woman raised in wealth in the North guards against amnesia as she tells the story of her world. Their combined stories create the epic, Morrison's *galaxy* ("Memory" 214), which includes the stories of "everyman."

Discussing the work of anthropologist Albert Marshack regarding storied thinking, Slattery writes:

> The very art of shaping a narrative helped the storyteller to see and recognize the

> process and change, to widen his references and comparisons, to 'understand' and to participate in them in storied terms. (“Narrative” 332)

The act of listening encourages the patients/storytellers to participate with their memories as well as their current state in storied terms. It is Mnemosyne herself who guards against Slattery's “cultural amnesia.”

In his book, *The Wounded Body,* Slattery uses Toni Morrison's work *Beloved to* speak of “the power of memory to incarnate itself in the world” (228):

> Memories may be understood as ways of imagining our stories; we retrieve those moments from the past that actually shape and define our identity. The body enslaved, scarred, beaten, abused, the memories attendant on those experiences, memory and narrative, are of a piece in the individual; one cannot be dealt with without the others.

(217)

As the patients weave their own wounded bodies into their stories, entirely new stories arise for them and for their families. One woman re-membered herself as a young bride. In that moment, the octogenarian in front of me transformed into a youthful and beautiful newlywed, filled with the joy and excitement of life. She was able to remember back to a lovely moment and then remember forward to the joy she felt as a young mother with small children. As this woman told her story, she was again in relationship with her younger self as she remembered a time before now, a time in a healthy form before her body was wounded and dying. At the same time, she was weaving her memories into this strange new world which she would inhabit from now on. She loved her newly re-found and re-created story. It was only when her grown daughter entered the room and disputed the recollections of her mother that the older woman appeared crestfallen.

Beloved was “hungry for stories” (Slattery, *Wounded* 214). This daughter of this elderly hospice patient, so much like Morrison's Denver, sat with her mother each day, begging her mother to retell old stories “in order ‘to construct out of the strings she had heard all her life a net to hold Beloved” (*Beloved* 76). The daughter had spoken of her worry that when her mother's stories were gone, a piece of her Self would be gone as well. As sad as it was to witness, the daughter of the woman in hospice was heartbroken when she realized that her mother had entered what the medical world calls *dementia*. Her mother was creating the memories in which she herself would live out her days. And like Denver, this daughter would have to become the caretaker who would lose a part of her identity when she lost her mother's memories.

One man told the story of his long endured separation from the woman of his dreams. Forced to leave home for college and then military service, he spent a decade working his way back to her, back to his high school sweetheart so that they could wed and create a family. He had gone off to college in the South, and she had gone farther north. Four years of separation became eight as he was called to military service. Like Penelope, his young wife-to-be held off suitors, trusting that the man of her dreams would return to her. After long years of separation, he did return, they wed, and together created a beautiful life together and a family. As he and I wove a relationship between us, he was re-weaving his relationship to his beloved as well as to his memory of his lost youth, his lost health,

and his lost life. Here he was, in the hospice, telling me this glorious love story which he spun from his memory. As he spun his tale, I knew that I was listening to a microcosm of the epic of mankind.

This recording session captured and bore witness to the essential poiesis at the core of the process of the epic imagination. Like a bard, he was spinning a tale of love from his memory of the world of his experience. He seemed to

> venture farther and farther into what Italo Calvino calls "the forest of fairy tale," and if he has sufficient courage to proceed into the unknown, toward something "darkly felt," he may be fortunate enough to be seized by a power outside himself and to be overcome by "the vibrancy of the myth." (Cowan, "Epic as Cosmopoesis" 10)

The story that this man told of his life has any number of fairy tale elements, and he was a wonderful story teller and bard. It was hard to know how much of his story would be born out in history books or even experienced in the same way by his wife, the woman of his dreams. But, whether this story is fiction or nonfiction is unimportant. It is his truth, his story, and it is the engagement of his imagination with his memory which was important throughout the interview.

The American culture of the twentieth century is the backdrop for the hospice stories and through the act of storying the memory of the American cultural cosmos is being stored in the collective memory. Morrison writes: "The memory is a living thing - it too is in transit. But during its moment, all that is remembered joins, and lives - the old and the young, the past and the present, the living and the dead" ("Memory" 224). The collection of these stories is both epic in proportion and depth. Cowan writes of having "sufficient courage to proceed into the unknown" ("Epic as Cosmopoiesis" 10). Perhaps it is exactly this which gives the stories their power. Perhaps it is death itself, darkly felt, which inspires each of these people to add their voice to the creation of the epic cosmos that is the hospice.

The epic poem of Gilgamesh gives the modern reader a glimpse into the power of the fear of death and the time of dying as imagined in antiquity. This poem dates back to the fourth millennium BCE, was composed over the course of nearly one thousand years, and has been found to have been written in at least four different cuneiform languages (Akkadian, Hurrian, Hittite, and Sumerian). Remarkably geographically widespread, fragments of the tablets have been found as far north as the ancient Assyrian city of Nineveh and as far south as the southern Babylonia city of Uruk. The Sumerian king list, a clay tablet inscribed in Uruk during the reign of King Utukhegal dated 2125 BC, names the actual King Gilgamesh as the King of Uruk in 2750 BC (Trans. Foster xi). Scholar Maureen Gallery Kovacs explains:

> According to the narrator, the Epic of Gilgamesh was written by Gilgamesh himself, and the very tablet (or stela) on which he wrote his experiences was deposited in the foundation of the city wall of Uruk, where it remains available for all to read. (xix)

Translated from the original cuneiform at the end of the nineteenth century, the text has been researched and plumbed by hundreds of scholars since, and the historical importance of this poem cannot be over emphasized. Scholarly examples include scholar and author Alexander Heidel of the Oriental Institute at the University of Chicago. In his

text *The Gilgamesh Epic and Old Testament Parallels*, Heidel writes, "The Gilgamesh Epic, the longest and most beautiful Babylonian poem yet discovered in the mounds of the Tigro-Euphrates region, ranks among the greatest literary masterpieces of mankind" (1). Upon reading this story, the great poet Rainer Maria Rilke wrote, "I have immersed myself in [the Gilgamesh Epic], and in these truly gigantic fragments I have experienced measures and forms that belong with the supreme works that the conjuring Word has ever produced" (Mitchell 3).

Although several different versions of this story have now been discovered, for tablet references I will use the translation of the Standard Babylonian version, written in a dialect of Akkadian reserved for literary composition, and discovered in 1849 by Austen Henry Layard in the ancient Assyrian city of Nineveh in the library of King Ashurbanipal. When other fragments are referenced, I will make the distinction in sources clear in the text.

In the ancient poem of Gilgamesh one finds the first written account of the dying process in ancient Mesopotamia. Writing in her book *The Archetypal Significance of Gilgamesh,* Rivka Schärf Kluger discusses the importance of having a historical perspective on the culture from which a myth arises in addition to having insight into the problems that concerned the people at the time the story was told (13). As noted above, Gilgamesh was indeed an actual historic figure, the king of the ancient city of Uruk, but as his stories were told and repeated, he was much mythologized, and the stories about him moved from history to a combination of history, myth, and folklore. Kluger writes:

> I believe it is a matter of immediate necessity for us to understand such *documents humains* in relation to our own life, for all ages live in us, and we cannot really understand ourselves unless we know our spiritual roots. (13)

Having placed the historicity of this epic, I will now lead the reader through the story to the place of the dying scene of Enkidu. The introductory prologue found in tablet I entreats the reader to "find the cornerstone and under it the copper box that is marked with his name / [Gilgamesh] Unlock it. Open the lid. Take out the tablet of lapis lazuli. Read how / Gilgamesh suffered all and accomplished all" (Mitchell 70). Tablet I describes the tyrannical rule of the people by King Gilgamesh and the complaints of the people about their enslavement to the god Anu. *The Dictionary of Ancient Near Eastern Mythology* explains Anu as the god with superior authority in the [Sumerian] pantheon:

> From the Old Babylonian period onwards Anu was usually acknowledged as one of the three most senior deities of the pantheon (with Enlil, Ea, and I?tar). An[u]'s function in the mythological and theological texts is primarily one of authority. He is represented as the apex of divine hierarchy. (Leick 5)

In response to the complaints of the people, Anu instructs Aruru, the goddess and mother of creation, as follows: "Now go and create a double for Gilgamesh, his second self, a man who equals his / strength and courage, a man who equals his stormy heart. Create a new hero, let / them balance each other perfectly, so that Uruk has peace" (Mitchell 74).

Aruru creates Enkidu from a clump of dirt, and the remainder of tablet I and the entirety of the tablet II describe the acculturation of Enkidu, which ultimately leads him into the city of Uruk to confront Gilgamesh. Enkidu arrives in the city, and the two men confront

each other and enter into a wrestling match, each attempting to gain dominance over the other. But, as Anu has ordered, the two men are evenly matched, and rather than either man gaining dominance over the other, they become fast friends and inseparable companions. Tablet II closes as "they [Gilgamesh and Enkidu] embraced and kissed. They held hands like brothers. They walked side by side. They became true friends" (Mitchell 90). Kluger writes, "The fact is that myths, in most cases, indicated a positive possibility for the solution of a conflict, i.e. the possibility of integration, and not the negative one of disintegration" (29). Of the creation of Enkidu by Aruru, Kluger explains: "[The gods] create somebody whose pull is strong enough to get [Gilgamesh] out of the wall building business. It must be something which has an equal or greater attraction, to really pull someone out of such a possession" (29-30).

From this point forward, Gilgamesh and Enkidu are inseparable heroes, deeply devoted to the protection of one another, and portrayed together as unbeatable. However, the tone of the poem begins to change in tablet VI when the pair goes off to the Cedar Forest to kill Humbaba, the sacred guardian of the Cedars. Their actions infuriate the ancient and powerful god Enlil, who rains down curses on the twins. Later, in tablet XI, the reader learns that it was Enlil who had single-handedly caused The Deluge which earlier had destroyed all of humanity (tablet XI and Heidel 226-27). A member of the oldest and most powerful triads of gods, Heidel explains that Enlil is somewhat rash in his decision making (226). *The Dictionary of Ancient Near Eastern Mythology* discusses Enlil:

> The personality of Enlil is very complex. Enlil is responsible for all aspects of life, fertility, and prosperity, as well as famine and catastrophes. On the one hand he is the "lord of abundance". Whose word - it is plants, it is grain, who maintains the well-being, peace and fertility of the land; on the other hand a considerable number of myths and religious compositions concentrate on his negative influence. (Leick 46)

After the murder of Humbaba, Gilgamesh and Enkidu return to the city to a heroes' welcome. Gilgamesh washes and cleans himself and finds that he has attracted the affections of the goddess Ishtar, who invites him to become her consort. In "A Psychological Approach to the Trinity," Jung writes that Ishtar "is the mother of the gods and at the same time the daughter of Anu . . . " (*CW* 11: 175). Leick calls attention to the other aspects of Ishtar:

> [S]he is not only a goddess of love, procreation, justice, mercy and compassion, but of war and battle, of conflict and lamentation. She persecutes her enemies and those "who sin against her" with relentless fury, inflicting them with every evil and misfortune. A great number of prayers were therefore addressed to I?tar in an effort to appease her angry heart, to influence the omens and to grant peace and protection to her subjects. (97)

Gilgamesh listens as Ishtar attempts to seduce him to become her consort. He not only refuses her invitation, but he proceeds to insult her by speaking of her many "stinking deeds" (tablet VI, lines 42-79); referring to her treatment of her previous consorts. Not surprisingly, Ishtar is infuriated by this harangue, and she appeals to the supreme Anu to give her the rein to the Bull of Heaven, that she may send it down to destroy Gilgamesh (tablet VI, lines 80-94). Ultimately, Ishtar is given control of the great Bull and she unleashes its power in Uruk, wreaking havoc on the city. It snorts once and creates a hole

so large that 200 men fall in. The next snort creates an even larger hole, into which 300 men fall. Gilgamesh and Enkidu fight and destroy the Great Bull, further infuriating the goddess. When Ishtar sets up a lament for the loss of this great animal, Enkidu yells curses at her and throws the thigh of the dead animal at her, hitting her in her face (tablet VI, lines 159-164). Again, Gilgamesh and Enkidu are lauded by the city and, as tablet VI closes, they lie down to sleep for the night.

At the end of tablet VI and at the beginning of tablet VII, the midpoint of the poem, Gilgamesh and Enkidu have been cursed by both Enlil and Ishtar, and the poem tells that Enkidu now has a terrifying dream. The placement of this frightening dream is significant in that it occurs at the halfway point and changes the direction of the epic from this point forward. In her text *Gender and Aging in Mesopotamia,* Rivka Harris explains:

> Psychological traits that characterize youth abound in the epic: competitiveness, aggressiveness, impetuosity, recklessness, risk-taking to mention a few. His [Gilgamesh's] immaturity is revealed in the dangerous battles against the monster Humbaba and the ferocious Bull of Heaven. The admonition of the elders is of no avail. (39)

Enkidu's nightmare portends his own death and changes the scene which occurs next, in tablet VII.

> As Enkidu awakens from his dream he says (to Gilgamesh),
>
> Oh my brother - the dream which [I saw] last night!
>
> Anu, Enlil, Ea, and the Sun-god of heaven [were seated in council].
>
> and Anu spoke before Enlil,
>
> "Because they killed the Bull of Heaven [and because]they have killed Huwawa, who [made] the mountains thick with cedars" - so said Anu - "between them [one must die]!"
>
> And Enlil said "Enkidu shall die, but Gilgamesh shall not die!"
>
> Then the Sun God of Heaven responded to heroic Enlil, Didn't they kill them (!) at my (!) behest - the Bull of Heaven and Huwawa? And should innocent Enkidu now die?" Enlil became angry with the Sun-god of Heaven, "Why do you accompany them daily like a comrade?" (Foster 163).

This dream begins with a vision of the triad of gods, Anu, Enlil, and Ea. In "A Psychological Approach to the Trinity," Jung explains,

> Triads of gods appear very early, at a primitive level. The archaic triads in the religions of antiquity and of the East are too numerous to mention here. Arrangement in triads is an archetype in the history of religion, which in all probability formed the basis of the Christian Trinity. (*CW* 11: 173)

Both Anu and Enlil are discussed earlier in this section. Ea is described by Leick as a god who is syncretic with the "Sumerian god Enki" (37). She writes, "In the Akkadian myths, Ea is the god who is appealed to in difficult situations because of his cunning and wisdom. . . . He is ever ready to help those in trouble and protects the persecuted" (Leick 37). Ea completes this trinity, yet he is silent in this dream. In the dream it is Shamash,

the Sun-god, who argues with Enlil as to whether it will be Gilgamesh or Enkidu who will die. Shamash (?ama?), the Sumerian sun-god, is a member of what Jung describes as a "secondary, rather later triad . . . made up of Sin (moon), Shamash (sun), and Addar (storm)" (*CW* 11: 173). However, writes Jung, "there is [another] secondary triad, Sin-Shamash-Ishtar, [that] is indicative of yet another intra-triadic relationship. Ishtar appears here in the place of Adad, the storm god" (*CW* 11:175).

Nin-sun , the mother of Gilgamesh, was a priestess to Shamash. Historically, explains Leick,

> the Akkadian ?ama?, as a god of justice, was a deity of cosmic and national importance, "the lord of heaven and earth". But in the existing god-lists he was never awarded the supreme rank. A bilingual hymn celebrates the all-encompassing vigilance and mercy of the sun-god. His rising in the morning renews all life; as he ascends into high heaven, he surveys living beings wherever they may be, from the highest to the humblest. At the zenith he reveals himself as the god of justice who destroys the wicked and rewards the just. (148)

In a psychological sense, Kluger explains Shamash to be "a symbol of the new consciousness" (100).

Harris explains that Anu and Enlil are among the most ancient Babylonian gods, although "it is a younger god Ea and not an 'ancient' or 'old man' such as the god Anu who is given the role of advisor" (30). In her discussion of the Babylonian pantheon, Harris writes:

> The latent tension and fear of the old toward the young is spelled out [in the Atrahasis myth from Old Babylonia]; the vulnerability of the old, presumably in the face of greater strength and aggressiveness of the young, is underlined; and the legitimate grievance of the younger gods who do the dirty work is recognized. (77)

In "A Psychological Approach to the Trinity," Jung explains that "Ea is a god of the 'underworld,' but, in his case it is the watery deep. The knowledge that Ea personifies comes from the 'depths of the waters'" (*CW* 11: 176). In this first dream dreamt by Enkidu, it is Anu, the supreme Lord of heaven, who is the first to declare that one of the heroes must die for their transgressions. However, it is Enlil who determines that it will be Enkidu. Shamash argues with Enlil, noting that both Gilgamesh and Enkidu have had his blessing throughout all of their adventures. The dream ends as Enlil chides Shamash for having become to close to the heroes. Harris explains:

> Within the complexity of the divine essence, which we see here still represented as a polytheistic plurality of God, if we take them as one, there are different aspects of the divinity. Shamash, as Dr. Jung said once in a discussion of this material, is the mystery of consciousness, the archetype of consciousness in the unconscious, in the realm of the gods. And that is what the other gods, who want to remain in their divine unconscious, do not like. (145)

This simple yet complex dream is among the earliest written accounts of a dream which accurately and heart wrenchingly portends the imminent death of the dreamer. In accordance with the religious beliefs at the time, it is the council of the gods who have the power to decide the time and manner in which one will die. The presence of the gods

in the dream are the representation of an archetypal presence. In the "Tavistock Lectures," C. G. Jung writes, "Whenever archetypal figures appear in dreams . . . I explain to the patient that his case is not particular or personal, but that his psychology is approaching a level which is universally human" (*CW* 18: 233). As one understands from this dream, writes Kluger, "the gods are not just, but they create meaning, which in the best case, may be equal to a higher justice" (147).

Although earlier dreams of Gilgamesh were interpreted in tablet I by the goddess Ninsun, the mother of Gilgamesh, and in tablet V by Enkidu, this dream is not interpreted. Portrayed as a simple man, Kluger describes Enkidu as "the primeval man, the animal-like man" (30), a man who lives close to his instincts. C. G. Jung writes, "I have noted that dreams are as simple or as complicated as the dreamer is himself, only they are always a little bit ahead of the dreamer's consciousness" (*CW* 18: 244). The reader gets the impression that this dream is as simple as Enkidu and clear enough in its meaning to require no interpretation. The council of gods has met and determined that Enkidu must die. Immediately upon awakening from his dream, Enkidu falls ill and begins to die.

Bearing witness to this death, the reader is privy to many emotions of the dying Enkidu as well as the wrenching emotions of his best friend. Gilgamesh, the powerful king of Uruk, is reduced to tears as he sits by completely powerless to help his friend. The poem expresses the terrible confusion and grief experienced by Gilgamesh as well as his feeling of guilt that it is Enkidu who has been slated to die rather than Gilgamesh himself. To Enkidu he says:

> O brother, dear brother, why do they acquit me instead of thee . . .
>
> Friend, the gods have given you a mind broad and . . .
>
> Though it behooves you to be sensible, you keep uttering
>
> improper things!
>
> Why, my Friend, does your mind utter improper things?
>
> The dream is important but very frightening,
>
> your lips are buzzing like flies.
>
> Though there is much fear, the dream is very important.
>
> To the living they (the gods) leave sorrow,
>
> to the living the dream leaves pain.
>
> I will pray, and beseech the Great Gods,
>
> I will seek . . ., and appeal to your god.
>
> . . . Enlil, the Father of the Gods,
>
> . . .Enlil the Counselor . . .you.
>
> I will fashion a statue of you of gold without measure,
>
> do nor worry . . ., gold . . .
>
> What Enlil says is not . . .

What he has said cannot go back, cannot . . .,

What . . . he has laid down cannot go back, cannot . . .

My friend . . . fate goes to mankind. (tablet VII)

Gilgamesh attends to his dying friend not only by his presence but also by naming a vast array of emotions which are present in the time of dying. He speaks of the gods, of the importance of dreams, of the fear of death, of the sorrow of those left behind, the pain left to the living, and the importance of keeping alive the memory of the dying individual.

Throughout his lament, Gilgamesh expresses the Mesopotamian belief in the gods and their almighty power to determine the destiny of all men. The ancient Babylonian culture held the belief that "[d]eath was the result of man's natural constitution; it was one of the inexorable laws of nature, a law divinely ordained at the time of man's creation" (Heidel 138).

After this poignant speech, Gilgamesh becomes a silent presence and quietly listens as Enkidu unleashes a series of curses at the door that he and Gilgamesh built from the destroyed Cedar Forest. Kovacs explains, "It is for cutting the Cedar that the gods have condemned him" (58). He cries out to Shamash and curses the trapper and the harlot who drove him to leave the forest in the first place (tablet VII: lines 78-121). As Enkidu rants in fury, Gilgamesh models what Rachel Remen describes as *generous listening*; he is quiet and speaks hardly at all. Through his silence, Gilgamesh demonstrates complete attentiveness to the words of his dying friend. The quiet reassuring presence of Gilgamesh and his careful listening provide a certain comfort and encouragement to his friend. In this way, Gilgamesh helps to create the sacred vessel of companionship and caring within which Enkidu dies.

In these early curses, Enkidu spontaneously begins to recount tales of his life in what is known in the current hospice literature as a *life review.* The value of storying at the time of dying to an attentive listener is given a central role in this epic poem. Indeed, the constant presence of Gilgamesh keeps loneliness at bay for the dying Enkidu. Gilgamesh remains by Enkidu's side during the twelve days of the dying process.

From as long ago as 2750 BCE, the role of a friend to care for the dying was highlighted as being of tremendous importance. The Gilgamesh epic brings into focus the tremendously important presence of a patient, spiritual, and attentive listener in the landscape of one's dying process. Such an attendant being present at the time of dying is a theme that will repeat throughout the upcoming chapters. I argue that Gilgamesh is, indeed, the archetypal brother at the bedside of a dearly beloved dying brother.

As tablet VII proceeds, Enkidu continues his rant until finally Shamash speaks directly to him. He reminds Enkidu of the many wondrous gifts given to him during the course of his lifetime and from his place in heaven Shamash says:

Why, O Enkidu, dost thou curse the courtesan, the prostitute,

Who taught thee to eat bread fit for divinity,

To drink wine fit for royalty,

Who clothed thee with a magnificent garment,

And who gave thee splendid Gilgamesh for thy companion?

(VII, lines 35-39, Heidel 59)

As Kluger explains, from a depth psychological perspective "one could say that Shamash is the masculine Self, but one could also say that he is the spiritual element. [Shamash], the patron god of Gilgamesh, the sun god, stand[s] for a higher consciousness" (137). This direct speech of Shamash gives Enkidu pause to reconsider his earlier words. The dying hero cannot withdraw his curses. Instead, he expresses his remorse, his words bestow a blessing on the prostitute in an attempt to balance the evil of his curse (tablet VII, column iv). This speaks to a universal reality as demonstrated by Enkidu, an age-old reality described by Sherwin Nuland in his book *How We Die*:

> We bear more than pain and sorrow when we depart life. Among the heaviest burdens is apt to be regret, which deserves a word at this point. As inevitable as death is and as likely to be preceded by a difficult period, . . . , there are additional pieces of baggage we shall all take to the grave, but from which we may somewhat disencumber ourselves if we anticipate them. By these, I mean conflicts unresolved, breached relationships not healed, potential unfulfilled, promises not kept, and years that will never be lived. For virtually every one of us, there will be unfinished business. Only the very old escape it, and even then not always. (261)

Enkidu has spoken with anger and fury in his words. But after hearing the words of Shamash, the god of consciousness, Enkidu's anger subsides, and his expression becomes one of remorse and regret.

After Enkidu blesses the harlot, Enkidu again falls asleep and dreams. This second dream is a deeply complex night vision in which he describes his dreamt experience of the Babylonian netherworld:

The heavens [roared], the earth resounded.

. . . I was standing (?) by myself.

. . . appeared, somber was his face.

His face like [that of Zû (?)].

. . . his talons were (like) the talons of an eagle.

. . . he overpowered (?) me.

. . . he leaps.

. . . submerged me.

(……)

. . . he transformed me,

[That] mine arms [were covered with feathers] like a bird.

He looks at me (and) leads me to the house of darkness,

To the dwelling of Irkalla;

To the house from which he who enters never goes forth;

> On the road whose path does not lead back;
>
> To the house whose occupants are bereft of light;
>
> Where dust is their food and clay their sustenance;
>
> (Where) they are clad like birds, with garments of wings;
>
> (Where) they see no light and dwell in darkness.
>
> In the h[ouse of dus] t, (sic.) which I entered,
>
> I loo[ked at the kings (?)], and (behold!) the crowns had been deposited.
>
> I beh[eld the potentates], those who (used to wear) the crowns,
>
> Who from the days of old had ruled the land,
>
> [the representatives (?)] of Anu and Enlil, (it was) they who served the fried meat,
>
> Who served the [baked goods], who served the cold water from the skins.
>
> In the house of dust, which I entered,
>
> Dwell high priest and acolyte;
>
> There dwell incantation priest and ecstatic;
>
> There dwell the attendants of the lavers of the great gods;
>
> There dwells Etana, there dwells Sumuqan;
>
> [There also dwells] Ereshkigal, the queen of the underworld.
>
> [Bêlit]-sêri, the lady scribe of the underworld, squats before her.
>
> [She holds a tablet (?)] and reads before her.
>
> [She said: 'Who] has brought this man here?'" (tablet VII)

In this gray and airless place reside all the souls of those who have died before Enkidu. This dream is both complicated and filled with frightening images for both Gilgamesh and Enkidu. "Ereshkigal," explains Kluger, "the goddess of the underworld, was imagined as a monster with a lion's head. She has snakes in her hands, and animals suck at her breasts" (151). Heidel explains the ancient Babylonian belief regarding death and thus helps the reader to better understand this dream of Enkidu:

> Death was not conceived as the absolute end of life or as effecting the complete annihilation of conscious vitality. Rather, it meant the separation of body and spirit, the decay of the former and the transfer of the latter from one mode of life or existence to another; while the body was laid to rest in the ground, the spirit descended to the underworld to sojourn there throughout eternity. (139)

Unfortunately, after Enkidu recounts this dream, there is a break in the text of approximately fifty-five lines after which Gilgamesh is discussing the dream, presumably with his mother. Ninsun has previously interpreted the dreams of her son, and it is particularly unfortunate that the tablets are severely damaged here and the text lost. Perhaps, as some scholars have suggested, the lost text includes Ninsun's dream interpretation.

It is worth noting that in this masculine culture the dying process includes the presence of goddesses; for example, Ninsun; Ishtar; Ereshkigal; and Bêlit-sêri, the scribe of the underworld and goddess of the desert. In her work *The Death of a Woman,* Jane Hollister Wheelwright explains, "Death is in the province of the archetype of the female deity (great mother)" (9). The psychological role of the feminine in the dying process is discussed by Dona S. Gower in her essay "*Inanna* and the Epic Eros." She writes, "Enkidu dreams of his journey to the underworld into the kingdom of Irgal (Ereshkigal/Inanna/Ishtar) before dying. This epiphany changes his soul, for he understands his dishonor in having offended the power of Ishtar" (321). The role of the mother archetype presents itself throughout this project and will be discussed repeatedly in later chapters.

Regarding the landscape of Enkidu's dream Kluger writes,

> We have here a description of the Babylonian nether world. Enkidu, tragically sacrificed for the sake of his friend's sun-like way to consciousness, unable to understand why he has to die, receives in this dream again a confirmation of the unchangeable verdicts of the gods. (150)

Kluger continues, "To the old Babylonians, death is the "inescapable nightly destiny" which puts an end to all human brightness, according to 'age-old' laws" (150).5 After this dream, the text painfully counts the last days of Enkidu one by one.

This exquisite death scene prefigures many of the death scenes which will be plumbed for meaning in this project. As Tablet VII begins, the dream of Enkidu that portends his own death acts as a threshold of sorts, a liminal or transitional space, that takes him from the land of the healthy to the landscape of dying. From this tablet forward, the arch-theme of dying determines the action of the story. The life of each of the heroes traveling through this landscape changes dramatically. No longer is Enkidu able to pursue the things which gave him life and joy when he was robust and alive, and no longer is Gilgamesh able to deny the pain that he experiences as he witnesses the death of his friend. They share this profound experience, and both are changed by it.

The realm in which Enkidu and Gilgamesh are now living in this epic is the sacred time-space of Enkidu's dying. It is a time outside of time during which none of the concerns of daily living are mentioned, nor does it seem that any concerns of the rest of the kingdom matter in this uniquely sacred moment. The sacred vessel within which this process occurs includes Enkidu himself, Gilgamesh his best friend, and Shamash, the sun-god whose voice is heard during these last days. The landscape of dying in this ancient story includes the human emotions of these men who lived over four thousand years ago. In the course of the dying process, anger, fear, remorse, frustration, resignation, love, affection, anguish, and spirituality are all expressed and integrated with the physical pain of the dying process. As tablet VII ends, Enkidu passes away, ending his mortal suffering.

Tablet VIII begins with Gilgamesh at the bedside of the now deceased Enkidu and he, Gilgamesh, begins his long and beautiful lament for his cherished brother. Over the remaining four tablets, Gilgamesh repeatedly reviews the life of his much-loved Enkidu, and his actions and words come to belie his personal terror of death. Kluger writes:

> It appears that he has to experience his friend's death on a still deeper level. Enkidu's

> death is becoming for him the experience of death as such. It seems that for the first time he has been struck by the awareness that man has to die and that this applies also to him. As a collective being, he had, of course, known it. He had seen people die, but up to now he had not fully realized it. I think that is something very general. We all have had such experiences of things which we knew long ago, but which suddenly hit us in a new way. (159)

The experience of Gilgamesh is both archetypal and epic in nature; his fears and his quest are both personal and universal aspects of the human condition. Sitting with his dying friend has allowed him to experience the very human emotion of profound grief over the loss, and with that he has come face to face with his own mortality. This deeply moving experience completely reshapes Gilgamesh. Kluger writes:

> [W]e have all had experiences with death, but *once* it becomes the archetypal experience, one could say. Every human archetypal experience gets its full weight only when it meets in us the maturity to receive and to understand it. (159)

For the many descriptors that can and have been applied to this epic poem, one thing that is eminently clear is that the way these two men approach death and live through the dying process together is, indeed, both universal and archetypal. Kluger writes, "In realizing death Gilgamesh becomes human" (160). Psychiatrist Irvin D. Yalom writes, "Gilgamesh speaks for all of us. As he feared death, so do we all - each man, woman, and child" (1).

If it is true that Gilgamesh himself did write the original story, then this work can be viewed to some extent as a work of nonfiction. Of course, given that the poem was composed over the course of a thousand years, it is reasonable to speculate that as the poem was retold and versions rewritten, the heroes were mythologized and elements of myth, folklore, and fiction became integral aspects of the epic. The active role of the gods in the fate of mankind, beginning with Enlil's involvement in the Deluge, prefigures much of what is found in the dying words of Old Testament figures regarding their relationships to their own death, the afterlife, and to their own god. This ancient epic provides scholars with a study of the ancient religion of the Tigro-Euphrates Valley and is considered to be foundational to the study of literature in the Western world.

Chapter 3

Angels, Time, and God: What We Can Learn from Abrahamic Faith Traditions

The time of dying is filled with mystery and unanswerable questions. At the 51st Annual Meeting of the American Society for Radiation Oncology held in November of 2009, Dr. Ajay Bhatnagar, radiation oncologist at the University of Pittsburgh Cancer Institute, reported, "Ninety-five percent [of 508 cancer patients surveyed] said they wanted their doctor to be honest about their chances of a cure and how long they can expect to live" (qtd. in Laino, WebMD 4 Nov. 2009). "How long do I have to live?" The question itself is pregnant with the fear of death and yet, paradoxically, the very same question holds within it an element of hope. Fear of the unknown is deeply engaged when one begins to discuss death.

In his seminal work, *The Denial of Death,* twentieth century anthropologist Ernest Becker writes of the universality of the fear of death:

> [T]he idea of death, the fear of it, haunts the human animal like nothing else; it is a mainspring of human activity - activity designed largely to avoid the fatality of death, to overcome it by denying in some way that it is the final destiny for man. (ix)

Author J. P. Larsson claims, "One of the most fundamental sources of human fear is this fear of death." Larsson continues: "Arguably, the main duty for religion has been to provide answers to this question throughout human history, as it is believed that if one knows what happens after death, one does not fear it" (121). The writings of Jung help to further explicate the nature of the relationship between the religious phenomenon and human psychology. In "The Autonomy of the Unconscious" he says:

> Since religion is incontestably one of the earliest and most universal expressions of the human mind, it is obvious that any psychology which touches upon the psychological structure of human personality cannot avoid taking note of the fact that religion is not only a sociological and historical phenomenon, but also something of considerable personal concern to a great number of individuals. (*CW* 11: 1)

The notion that knowledge might allay fear of one's own death is debatable. What is not debatable is that fear of death appears to be a universal constant in the human condition, as is the religious impulse.

Of course, one cannot know with any certainty what is to become of the soul or spirit of any living being after death, yet most religious traditions address this topic in some fashion. C. G. Jung, for example, claims in "The Soul and Death,"

> [T]he *consensus gentium* has decided views about death, unmistakably expressed in all the great religions of the world. One might even say that the majority of these religions are complicated systems of preparation for death, so much so that life, in agreement with my paradoxical formula, actually has no significance except as a preparation for the ultimate goal of death. (*CW* 8: 804)

Fear of death, death itself, and the great religions of the world are inextricably woven

together in the tapestry of human experience. Rather than argue one as a causative factor for the other, the most prudent approach is to declare with surety that the impulse to religiosity and a fear of death are both powerful forces in the human experience.

Yale University Professor of Surgery Sherwin B. Nuland puts forth a modern American medical perspective on the tension experienced in the presence of death:

> To most people, death remains a hidden secret, as eroticized as it is feared. We are irresistibly attracted by the very anxieties we find most terrifying; we are drawn to them by a primitive excitement that arises from flirtation with danger. (xv)

From the spiritual to the psychological, the anthropological and the medical, the fear of death has been explored, expressed, and plumbed for the wisdom that each discipline might offer to illuminate one's life. From the earliest written story, that of Gilgamesh, one could argue that human curiosity regarding the mysterious threshold between life and death has driven people from all walks of life to ponder the question as to what becomes of one when one's own death is imminent.

A particular fear described by Nuland in his text is the fear of dying alone. He suggests that such a fear is one that the greater community can alleviate. Nuland writes, "A promise we can keep and a hope we can give is the certainty that no man or woman will be left to die alone" (243). By making this promise, Nuland voices the ancient Talmudic dictate that no sick or dying person is to be left alone. Attending to the sick is one of the few instances in Orthodox Judaism in which the obligation to the sick is more important than keeping the Sabbath. In their *Encyclopedia Judaica* article entitled "Death," Harry Rabinowicz and Reuben Kashani explain:

> The permission to transgress the Sabbath in order to ease the discomfort of the dying, however slender their chances of recovery, is not affected by the talmudic dictum that "most gosesim[6] die." (Git 28a). A dying person should not be left alone, and it is a great mitzvah[7] to be present at ye?i'at neshamah ("departure of the soul"). (512)

Indeed, the attendant at the bedside is understood to be engaged in divine communion and prayer with God Himself by virtue of being present to the dying individual. How extraordinary a concept to recognize in our busy culture that the act of being present to the sick is not only *enough,* but, in this unique time of life, *merely* being present is a sacred act. Jay R. Berkovitz, Professor of Judaic and Near Eastern Studies at the University of Massachusetts, explains:

> [T]he performance of acts of kindness (gemilut hasadim) encompasses the entire range of duties of consideration toward one's fellow human beings. Rabbinic tradition derived its theoretical and practical dimensions from an interpretation of several biblical narrative passages, concluding that one is enjoined to imitate God's moral attributes. Providing clothing for the needy, visiting the sick, and comforting the mourner, for example, are viewed as acts of divine worship, and such acts are understood, especially according to kabbalistic teaching, as a crucial human-divine partnership in the perfection of the world. (278)

The *Talmudic tradition*s or *dictates* emerge from one of two sources, the

Babylonian Talmud and/or the Jerusalem (or Palestinian) Talmud. The Talmuds are comprised of the *mishnah,* or "oral traditions" of Jewish law, and are understood by

scholars to be sister texts dating from the fifth century AD (Rabinowitz 485). Given that the Jews of antiquity lived in diaspora, one can know that the Talmudic traditions had wide spheres of influence in the Mediterranean basin and beyond. In his book *Diaspora*, Professor of History and Classics at the University of California Erich S. Gruen explains:

> The Jews of classical antiquity dwelled predominantly in diaspora. Palestine may have been the cradle of their culture, but most Jews lived elsewhere - in Syria, Egypt, and Mesopotamia, in Asia Minor, the Aegean, and Greece, even in Rome and Italy. The Jewish experience was largely a diaspora experience. (vii)

Historically, it is understood that Jews, Christians, and followers of Islam lived side by side throughout this region during antiquity, each informing the cultural practices of the other. Indeed, the biblical prophet Jeremiah speaks the word of God to the Jewish exiles in Babylon, giving voice to the importance of the weaving together of cultures:

> Thus says the Lord of hosts, the God of Israel, to all the exiles whom I have sent into exile from Jerusalem to Babylon: 5 Build houses and live in them; plant gardens and eat what they produce. Take wives and have sons and daughters; take wives for your sons, and give your daughters in marriage, that they may bear sons and daughters; multiply there, and do not decrease. 7 But seek the welfare of the city where I have sent you into exile, and pray to the Lord on its behalf, for in its welfare you will find your welfare. (Jer. 29:4-7)

In his article in the *Journal of Educational Sociology*, distinguished research professor and chairman of the department of Hebrew studies at New York University Abraham I. Katsh explains:

> As is the case of Christianity, the story of Islam is deeply and inextricably woven with that of Judaism. Indeed, Islam might never have developed as it did were it not for the Jews and Christians living in Yathrib (Medina) and other parts of the Arabian peninsula, whose tradition and teachings had an influence on the founder of the faith. (400)

Executive director of the Sacred Dying Foundation in San Francisco, Megory Anderson, has sat at the bedside of over 200 dying patients. In her book *Attending the Dying,* Anderson describes the importance of what she calls “vigiling”:

> Throughout history, the community of faith has traditionally been present both physically and spiritually during a death to guide the dying into the afterlife. Only recently, in the age of medicine and technology, have we passed this responsibility to hospitals and nursing homes. It is time to reclaim death and dying as a spiritual transition. (11)

The Islamic faith recognizes the sacred nature of the attendant to the dying by instructing members of the community to read the Qur’an aloud to the one who is dying. In a 1998 Hospice Foundation of America publication entitled *Living With Grief,* Shukria Alimi Raad explains:

> Funeral and burial practices differ somewhat among the wide variety of cultures in which Islam is practiced, but there are general patterns based on the advice given by the Prophet. When death is very near, someone is called to read verses of the Qur’an at the bedside. (50)

This tradition is exquisite in that it not only brings the bedside visitor into the room, but, for the follower of Islam, the practice of reading aloud gives voice to the sacred words of Allah himself. Vincent J. Cornell, Professor of History and Director of the King Fahd Center for Middle East and Islamic Studies at the University of Arkansas, explains the somewhat central role of the spoken word in the Islamic Tradition:

The Arabic term *Qur'an* is a verbal noun that carries the connotation of a "continuous reading," "recital," or message that is recounted or listened to over and over again. (unpaginated)

Cornell helps the reader understand the relationship between the spoken word and the Qur'an, the most sacred of Islamic religious texts:

> Throughout the Qur'an, divine revelation, and especially the Qur'an itself, is called a "book" (*kitab*). However, this term should not be understood as just an ordinary book. In medieval Arabic, the term *kitab* stood for any type of dictated communication, whether it was written or verbal. (unpaginated)

One can understand that in Talmudic tradition, and indeed in each of the Abrahamic faith traditions, the act of sitting at the bedside of the dying is understood to be a divine act of worship. By performing this act, the attendant is recognized by each of these great religions to be performing a supreme act of devotion to his or her God.

I recently had the opportunity to speak with a Jewish woman who had attended the protracted dying process of her husband. As she told her story, she bemoaned that she had felt useless; she had not been able to do anything for him, and all she could do was sit. How her world was turned when she learned of the sacred nature of what she had done, that according to her faith tradition, she was doing exactly what was required of her, and by so doing was in the deepest form of divine communion with Yahweh.

The need to *do something* when nothing can be done can overwhelm the one attending the dying person. Yet, with the knowledge of the sacred nature of the dying process as well as the sacred nature of the attendant, it is possible to change the dynamic occurring in the room where the dying process is taking place. Anderson writes:

> Each faith tradition believes that at the time of death, the soul leaves the body. Where the soul goes differs according to the religious belief, but this moment of departure is a sacred event, and one that requires not only respect from the living, but also assistance from those who witness it. (61)

On the nature of time itself

A discussion of the *time* of dying necessarily engages language from scientific as well as religious disciplines. Electronic engineer, research physicist, and founder of the International Society for the Study of Time, J. T. Fraser has lectured and taught courses at Massachusetts Institute of Technology, Mt Holyoke College, Fordham University, and other prestigious institutions. Particularly known for his work in the field of the study of time, Fraser writes, "The nature of time, perhaps because it may represent an instinctual ambivalence related to life and death, has so far defeated all attempts to achieve an exclusively scientific-empirical description of it independent of man" (56). The late S. G. F. Brandon, Professor of Comparative Religions at University of Manchester, explains the very basic nature of the question of time as dealing with a conceptual understanding

deeply rooted in one's earliest childhood cognition of the existence of birth and death. Brandon explains, "The knowledge of birth and death invests the life of each individual with a temporal significance that is basic, and it ultimately affects the evaluation of all experience" (143).

In many cultures, the time of one's death is considered to be divine knowledge, attributed to, determined by, and known only to the gods. As discussed in the previous chapter, during the time of Gilgamesh and Enkidu in Mesopotamia, religious beliefs held that gods Anu, Ea, and Enlil determined the time of one's death. Religions of ancient Greece believed the length of one's lifetime to be determined by the anthropomorphized Fates, the Moirae; Clotho, Lachesis, and Atropos. Monotheistic traditions of Judaism, Christianity, and Islam believe *time* was created by God (Gen.1:14) and that the time of one's death can only be known by and determined by God. It is clear that the teachings of each of the Abrahamic faith traditions consider death and the time of dying to be worthy of sacred consideration.

The medical community also understands the end of life to be a time requiring uniquely tender care. Clinicians are at once called upon to compassionately engage the emotionality of the end of life process at the same time as addressing concrete medical issues that surround the dying trajectory of the individual patient. Just as vigiling and an attendant at the bedside are spiritually important, proper pain management and medical care at the end of life must also receive appropriate attention. Any discussion of the time of dying must of necessity weave together the language of religion and medicine, the language of the sacred and the profane, to give voice to the lived experience at the end of life.

Religious historian and scholar Mircea Eliade helps the reader understand the role of sacred vocabulary when describing experiences outside of human understanding. In his seminal work, *The Sacred and the Profane* Eliade writes:

> The sacred always manifests itself as a reality of a wholly different order from "natural" realities. It is true that language naively expresses the *tremendum,* or the *majestas ,* or the *mysterium fascinans* by terms borrowed from the world of nature or from man's secular mental life. But we know that this analogical terminology is due precisely to human inability to express the *ganz andere*; all that goes beyond man's natural experience, language is reduced to suggesting by terms taken from that experience. (10)

The language of the profane cannot singularly express the lived experience at the end of life; the language of the sacred must be employed. Mystery shrouds the dying process and ultimately goes beyond one's cognitive ability to fully make sense of what is occurring.

From the very first question asked by a patient, the experience of time is brought into the discussion. Linear time may be measured and discussed in mathematical terms; yet the lived experience of time is anything but mathematical and linear. Marie Louise von Franz writes, "Only in modern western physics has time become part of a mathematical framework, which we use with our conscious mind to describe physical events" (*Time* 5).

If one were to question how long a day is, one would bump into exactly the elasticity

being described. In antiquity, a day was understood to last as long as the time between the sunrise and sunset. But, equatorial countries experience twelve hours of daylight and twelve hours of darkness, while Antarctica does not see the sun for the entirety of the winter months. The construct of linear time, a time marked by the passing of the hours, the minutes, the seconds on a clock, allows one to speak to another so that one is able to synchronize or schedule one's time. Yet, as discussed above, the lived human experience of time is more elastic. To wit, when one is engaged in an enjoyable activity, one might feel that "time flew by." Alternatively, when engaged in an unpleasant activity lasting exactly as long as the enjoyable one, one might have the felt experience of linear time slowing to a crawl.

The question regarding how much time remains in one's life raises the discussion of one's lived experience of time. John Cohen, Professor of Psychology at the University of Manchester, writes of one's changing perception of time as one ages:

> The subjective unit of elapsed time does not remain constant as we grow older. It is commonplace that with advancing age, the calendar years seem progressively to shrink. In retrospect every year seems shorter than the year just completed, possibly as a result of the gradual slowing down of metabolic processes, and hence retardation in the rate of healing, with advancing age. (262)

Although one's subjective experience of time varies, scientists have proven that the circadian rhythm of the human body operates on a near twenty-four-hour clock. In an article published in the journal *Science*, Harvard University Medical School researcher Charles A. Czeisler and his colleagues assert:

> Precise estimation of the periods of the endogenous circadian rhythms of melatonin, core body temperature, and cortisol in healthy young and older individuals living in carefully controlled lighting conditions has now revealed that the intrinsic period of the human circadian pacemaker averages 24.18 hours in both age groups, with a tight distribution consistent with other species. (2177)

Objective data from this and other studies strongly suggest that humans have an inborn biologically determined circadian rhythmicity, a rhythmic cycle that takes approximately twenty-four hours to complete. Professor of Botany at University of California Los Angeles Karl C. Hamner further delineates: "There are circadian rhythms in the blood eosinophil count, serum iron content, body temperature, heart rate, blood pressure, urine production, and excretion of phosphate and potassium" (290). Yet, at times the physiologic reality can be quite separate from one's subjectively lived experience of time. In other words, one can say with a measure of assurance that although one's physiology functions with circular rhythmicity, one's lived experience of time is subject to one's own perception.

When a person becomes ill and is hospitalized, it is a common experience to lose track of time. If linear time is defined as the time marked on a clock, then one might consider the experience of time during ones dying trajectory to be *a time outside of time*, a more primal or circadian experience of *time* itself. Fraser relates:

> The possession of a biological clock may be thought of as concomitant to any time sense as we understand time sense in man. The very question whether talking about

> time means talking about clocks is open to discussion. (279)

I would argue that the time of dying occurs in a time outside of linear time. For the one dying there is a very individual circadian rhythmic time determined by the physiological clock of the dying body; a primal sense of time very much in tune with one's lived experience rather than particular hours of the day. At the same time, one must also acknowledge that the scheduled time of medical and other attendants interacts with and has an impact on the patient who is proceeding through the dying trajectory.

There are at least two different experiences of time being interwoven at the end of the life trajectory; the first being the somewhat circular experience of the person dying and the other being the linear overlay of the schedule of the attendants. University of California sociologists Barney G. Glaser and Anselm L. Strauss describe the dying trajectory:

> The dying trajectory of each patient has at least two outstanding properties. First it takes place over time: it has *duration.* Specific trajectories can very greatly in duration. Second, a trajectory has *shape*: it can be graphed. It plunges straight down; it moves slowly but steadily downward; it vacillates slowly, moving slightly up and down before diving downward radically; it moves slowly down at first, then hits a long plateau, then plunges abruptly to death. (6)

In spite of what may be read as a very pragmatic and mathematical approach to the time of dying, Glaser and Strauss also address one's subjective experience as it affects the trajectory:

> Neither duration nor shape is a purely objective physiological property. They are both perceived properties; their dimensions depend on when the perceiver initially *defines* someone as dying and on his *expectations* of how that dying will proceed. (6)

It is inescapable that events in modern culture are often scheduled into linear clock time. In a hospital or in a doctor's office, or even at home with home health aides coming and going, a dying individual is subjected to and affected by linear time insofar as it affects the scheduling of medications as well as the schedules of the attendants. However, the lived experience of the one dying, that of one's inner bodily clock, is not bound by scheduled time. When one will die, the ultimate endpoint of one's individual journey cannot be mapped out with exactitude in advance of the terminus.

Glaser and Strauss discuss the "empty time" of the death watch and the import of this last stage on the activities and behaviors of the professional attendants. They write: "A very important aspect of the death watch is its role in maintaining the sentimental order of the staff members, by assuring that the patient will not die alone" (198). Regardless of profession, attendants to the dying tend to alter their own schedules to insure that the patient not be left alone during this tender transition. Echoes of the ancient Talmudic dictum can be heard in this reverential treatment of the dying individual.

In light of the religious import assigned to the time of dying, one must consider that in many cultures time itself has been accorded divine status. Although the role of one's individual biology as regards the senescence of the body must be acknowledged, one must also include the more global considerations in a discussion regarding *time*. Von Franz relates,

> Time is one of the great archetypal experiences of man, and has eluded all our

> attempts towards a completely rational explanation. No wonder that it was originally looked upon as a Deity, even as a form of manifestation of the Supreme Deity, from which it flows like a river of life. (*Time* 5)

The religious nature of *time* itself adds yet another sacred dimension to the arch-theme of the time of dying. Regarding the sacred nature of time, von Franz explains:

> In man's original point of view time was life itself and its divine mystery. This remains so in the ancient Greek notion of time. The Greeks actually identified time with the divine river Oceanos, which surrounded the earth in a circle and which also encompassed the universe in the form of a circular stream. . . . It was also called Chronos (Time) and later identified with Kronos, the father of Zeus, and also with the god Aion. (*Time* 5)

The divine and elusive nature of time joins with mystery as the end of life approaches, and together the sacred nature of death pushes one further into the language of the sacred. In the introduction to their work on the writings of thirteenth-century Christian philosopher and mystic Meister Eckhart, James M. Clark and John V. Skinner illuminate Eckhart's conception of birth and death in terms of a divine union with God. In doing so, they provide a mystical understanding of the time outside of time:

> Man proceeded from God (not as emanation, but by creation), and his highest destiny is to return to Him and be united with Him. It is in the "innermost" of the soul, or spark of the soul, that this union takes place. Man is then caught up into the Deity. He leaves the sphere of time and enters that of eternity. In this way he becomes (in the mystic union) what he eternally was in God (in the Divine mind), before the Creation. (Eckhart 28)

Spiritual hopefulness joins the myriad emotions present in the imagined vessel, the vessel of the arch-theme that creates and holds the time of dying as sacred and unique.

Visions experienced in the time of dying

It is common that dying individuals *see* people such as deceased friends or relatives whom they have known during their lifetime. Others speak of visions of angels as the end of one's own life approaches. Anderson writes:

> It is not at all unusual for actively dying people to have what seem to be incoherent conversations with people in the room, often directed at the ceiling or toward high corners of the room. Many people see these experiences as having one foot in this world and one foot in the next. (56)

These sorts of hallucinatory experiences tend to be pathologized as abnormal when they occur at any other time of life, yet as Anderson rightly notes, the religious community has long considered visions at the end of life to be a normal part of the dying process. It is noteworthy that the traditional medical establishment also recognizes these occurrences as a part of the normal dying process yet make no claim to understanding the phenomenon. The National Cancer Institute posts the following on its website,

> Hallucinations that are not related to delirium often occur at the end of life. It is common for dying patients to have hallucinations that include loved one's who have already died. It is normal for family members to feel distress when these

> hallucinations occur. Speaking with clergy, the hospital chaplain, or other religious advisors is often helpful. ("Last Days of Life")

Ordained rabbi and professor at The George Washington University Law School Lewis D. Solomon describes the dying process:

> During the dying process, according to the Jewish tradition, each of us encounters beloved, deceased relatives, close friends, and wise teachers as well as angels. Prior to or at the death moment, the spirits of deceased relatives and friends, those who loves us the most, visit a dying person to offer a welcome and ease the transition from the world of the living to the post death World of the Souls. (*Jewish Tradition* 64)

In the Jewish religion, a belief in angels and in the human soul is so deeply foundational that when challenged, one risks being banned completely from the faith. This was nowhere more evident than in the excommunication of the great Jewish philosopher Baruch (Benedict) Spinoza in mid-seventeenth-century Holland. Named by Jewish historian Arthur Hertzberg as "the first modern Jew" (qtd. in Telushkin 219), Spinoza challenged these basic tenets of Judaism and consequently suffered a total ban from Judaism for his beliefs. Telushkin explains, "Spinoza's excommunication by the rabbis of Amsterdam when he was in his mid-twenties was caused by his denial of angels, the immortality of the soul, and God's authorship of the Torah" (219).

To better appreciate Jewish beliefs regarding death, one must seek to understand the Judaic conception of a human soul. The soul, argues Solomon, is "difficult to describe in words" (*Jewish Book* 56). He continues:

> Jewish mystics view the soul - our inner substance, our spirit, our higher level of consciousness - as consisting of four intertwined energy fields or levels: physical; emotional; intellectual; and spiritual. (*Jewish Book* 56)

Solomon combines the concept of the soul with one's physical body and explains:

> This aspect of our soul directs the functions of our organs and orders our vital processes. For instance, our heart beats without any effort on our part and, in return, each heart beat supplies blood, the source of vitality, throughout the human body. (*Jewish Book* 56)

It is evident from this explanation that the integration of the human soul with the functioning of the body is foundational to Jewish mystical belief. Just as one's soul lives in communion with one's body throughout the entirety of one's lifetime, the experience of the soul is an integral part of the dying process. I assert that expression of the experiential aspect of the soul living in the dying corpus can be observed in the storying activity of a dying individual.

A religious conception of the human soul and angelic visitors is by no means limited to the Jewish tradition. Thirteenth-century Christian philosopher and mystic Meister Eckhart spoke of the closeness of the angels and the human soul to God Himself:

> The authorities teach that next to the first emanation, which is the Son coming out of the Father, the angels are most like God. And it may well be true, for the soul at its highest is formed like God, but an angel gives a closer idea of Him. That is all an angel is: an idea of God. For this reason the angel was sent to the soul, so that the soul

> might be re-formed by it, to be the divine idea by which it was first conceived. Knowledge comes through likeness. And so because the soul may know everything, it is never at rest until it comes to the original idea, in which all things are one. And there it comes to rest in God. (qtd. in Old 449)

Eckhart describes a mystical relationship between the angels, the human soul, and ultimately to God Himself. In mystical Christianity, angels are sent to the soul of an individual so that the individual may become enlightened by the knowledge of the one true God. Like Spinoza, Eckhart's ideas caused him to run afoul of the church fathers of his day. In their essay entitled, "A Theology Called Mystical," Jean Gerson and William James explain, "Certain of Eckhart's teachings were declared by Pope John XXII to be tainted by the 'stain of heresy' or at least 'evil-sounding and very rash and suspect of heresy'" (7). In spite of the condemnation by the Pope, the writings of Meister Eckhart became widespread and widely studied by other mystically minded theologians (7).

Angels as they are understood in the Islamic tradition are discussed by scholar and founder of the Naqshbandi-Haqqani Sufi Order of America, Shaykh Muhammed Hisham Kabbani. He writes: "The existence of angels [as messengers of God] is one of the pillars of belief in most religious traditions and that is the case in Islam also" (15). He presents a poetic description of angels as expressed in Islamic religious lore:

> God has created a tree in the seventh heaven, on each leaf of which is found one letter of the Koran. Every leaf is a throne carved from a precious stone, and every letter is represented by an angel sitting on that throne. Each angel is the key to a different endless ocean of knowledge, which has no beginning and no end. The diver into these oceans is the Archangel Gabriel. (16)

Islamic belief in the seventh heaven as a place of perfection emerges from an ancient piece of Persian folklore entitled "Muhammad's Journey to Heaven." Authored by eighth century biographer Ibn-Ishaq, the story is told that Muhammad was sleeping one night when the angel Gabriel awakened him and together they climbed a divine ladder through the levels of heaven. In the first level he met Adam and in the second he met Jesus and John the Baptist. As he ascended he met Joseph, Enoch, Aaron, and Moses and in the seventh heaven, the highest sphere of the heavens, he met Abraham sitting onthe throne at the entrance to paradise. In the seventh heaven Muhammad is said to have been admitted into the presence of God Himself. (Porter 66).

Jan Knappert's book *Islamic Legend* calls attention to how one might appreciate the role of legend in the Islamic culture: "Islamic legends are the tales told about the saints and heroes in history of the Islamic peoples" (1). Knappert, professor of Oriental Art and Islamic institutions at the University of Louvain in Belgium, asserts:

> For outsiders these are marvelous tales of miracle and mystery, or mysticism and self-sacrifice, products of the creative imagination of the Islamic peoples. For a minority of Islamic scholars and other educated persons the same applies, but for the majority of Muslims, for the broad layers of the population in the Near and Middle East, these are true stories, they are part of history. (1)

Twentieth-century French philosopher Paul Ricouer explores the relationship between *History and Truth* in his work of the same name. Ricouer argues, "We expect history to

have a certain objectivity - the objectivity which is proper to it" (21). An example of such an objective truth would be the death of the prophet Muhammad in 632 AD. Yet, the truths expressed in legend and folklore are not events limited to concretely discernable facts that occur in linear time. Accomplished scholar, author, and former professor of philosophy at Massachusetts Institute of Technology Huston Smith writes: "The deep meaning [of myth] is a truth in poetic language" (*Death and Transformation*, 3 min. 30 sec). Saints and heroes are often held up as moral exemplars of a society, and as such the teachings inherent in their stories form the basis of the moral fabric of the culture from which they emerge. Traditional Islamic lore represents the seventh heaven as the sphere where the angels reside, where the prophet Abraham dwells, and where God Himself is present.

It is important to understand the terms *mystic* or *mystical tradition* as they are understood by scholars and historians of religions. Indeed, it is imperative to understand that the mystical traditions cannot be belittled as being *New Age* creations unworthy of academic exploration. Harvard University professor William James describes the problematic uses of the word *mysticism* as early as the late nineteenth century. He writes, "The word 'mysticism' is not only widely used, but also widely abused" (188). Rufus M. Jones, professor of philosophy at Haverford College in the early twentieth century, explains:

> Mysticism is not a synonym for the "mysterious." It does not mean something "occult," or "esoteric," or "Gnostic," or "pseudo-psychic." It only means that the soul of man has dealings with realities of a different order from that with which senses deal. (25)

Former dean at Boston University, Howard Thurman, helps to clarify a religious understanding of the term: "[M]ysticism is defined as the response of the individual to a personal encounter with God within his own spirit" (6). Thurman relies on Jones to further his explanation:

> Rufus Jones gives as a working definition of mysticism the following: "The word mysticism is used to express the type of religion which puts the emphasis on the immediate awareness of a relationship with God, on direct and intimate consciousness of the Divine Presence." This working definition includes not only personal attitudes toward God, but a recognition of the primary experience of God within the inner core of the individual. (6)

Theologian Rudolph Otto summarized the essential aspects of all religious mystical traditions in his book *The Idea of the Holy*, first published in 1923:

> A characteristic common to all types of mysticism is the *Identification*, in different degrees of completeness, of the personal self with the transcendent Reality. . . . Identification with the Something that is at once absolutely supreme in power and reality and wholly non-rational. And it is among mystics that we encounter this element of religious consciousness. (22)

Although some may argue that mystical traditions are too far out of the mainstream experience and thus superfluous, I argue that, given the Pew Research Center8 finding that more than 80% of Americans in 2007 self-identify as Jewish, Christian, or Islamic (Pew 5), one must make every attempt to include various aspects of each of the traditions

which emanate from and inform the practices of the Abrahamic faiths. Rudolph Otto writes:

> While the feelings of the non-rational and numinous constitute a vital factor in every form religion may take, they are pre-eminently in evidence in Semitic religion and most of all in the religion of the Bible. Here mystery lives and moves in all its potency. (72)

Angels in Biblical and Qur'anic literature

The primacy of angels in the Judeo-Christian literature is made evident as early as chapter 16 in the Old Testament book of Genesis. This chapter describes a conversation between the angel of the Lord and Hagar, the mother of Ishmael, the first son of Abraham: "And the angel of the LORD found her by a fountain of water in the wilderness, by the fountain in the way to Shur" (Gen. 16:7). Followers of Islam understand that the Qur'an itself was recited directly to the prophet Muhammed by the Angel Gabriel:

> Say: Whoever is an enemy
>
> To Gabriel - for he brings down
>
> The (revelation) to thy heart
>
> By God's will, a confirmation
>
> Of what went before,
>
> And guidance and glad tidings
>
> For those who believe. (S II: 97)

The pre-eminence of angels in these sacred texts makes a compelling argument for the foundational nature of belief in angels in each of these Semitic traditions. Indeed, the emanation of an angel can be understood in one of two ways; one as an external embodied figure, such as the angel who speaks to Hagar or Muhammad; or, as Yale University Professor of Theology Denys Turner explains, as "metaphors -of 'interiority', of 'ascent', of 'light and darkness' and of 'oneness with God'" (1). Regardless of whether one understands angels to be external or internal, what is eminently clear from this research is that it is quite common for those who are dying to experience the close proximity of an angelic presence.

At the bedside of a dying patient, the Zen Hospice Project seeks to teach the attendant to expect to witness visions in the dying individual. Their website suggests, "If your loved one is experiencing hallucinations, simply be present to what is happening; it may be appropriate to just listen" ("How do you know"). However, one may still wonder what to make of the mental meanderings of one who is close to death. In an article entitled "Angels and Angelology" in the *Encyclopedia Judaica*, former president of the Synagogue Council of America Bernard J. Bamberger and his co-authors Joshua Gutman, Arthur Marmorstein, Dov Shmuel Flattau, Samuel Abba Horodezky, et al. explain: "the Bible frequently calls the angel the *mal'akh* [messenger] of God" (150). If one understands an angel to be a messenger of God, then it follows that "God" is not only manifesting during the dying trajectory, but is in communication with the dying

individual.

Through a depth psychological understanding, the religious experiences of the dying individual can be seen as a conscious expression of a connection to one's deeper self, to one's own unconscious. In "Self-Knowledge," C. G. Jung explains:

> [T]he unconscious [is] the only available source of religious experience. This is certainly not to say that what we call the unconscious is identical with God or is set up in his place. It is simply the medium from which religious experience seems to flow. As to what the further cause of such experience may be, the answer to this lies beyond the range of human knowledge. Knowledge of God is a transcendental problem. (*CW* 10: 565)

Quoting Paracelsus in "Paracelsus as a Spiritual Phenomenon," Jung argues the possibility that the human body itself is the manifestation of one aspect of the *light of God.*

> As [Paracelsus] says in his "Philosophia sagax": "There are, therefore two kinds of knowledge in this world: an eternal and a temporal. The eternal springs directly from the light of the Holy Spirit, but the other directly from the Light of Nature. In his view the latter kind is ambivalent: both good and bad. This knowledge, he says, "is not from flesh and blood, but from the stars in the flesh and blood. That is the treasure, the natural Summum Bonum ["the highest good"]." Man is twofold, "one part temporal, the other part eternal, and each part takes its light from God, both the temporal and the eternal, and there is nothing that does not have its origin in God. (*CW* 13: 149)

The words of Jung and Paracelsus express the possibility that angelic messengers are perhaps not the imaged externally embodied cherubs of modernity but rather emanations from within the human body itself. In other words, perhaps visual hallucinations are natural expressions of the body at the end of the life trajectory. Whether the dis-integrating body is causative of these hallucinations is not clear, but what can be said with certitude is that these visions can occur at the end of life in individuals with no prior history of hallucinatory events.

Publishing in 1987 in the *Western Journal of Medicine*, researchers Jeffrey L. Cummings and Bruce L. Miller from the Department of Neurology at UCLA Medical School describe the clinical occurrences of visual hallucinations:

> Visual hallucinations occur in diverse clinical circumstances including ophthalmologic diseases, neurologic disorders, toxic and metabolic disorders and idiopathic psychiatric illnesses. Their content, duration, and timing relate to their cause and provide useful differential information. (46)

In 1990 a review article on the aging brain of the human being was published by Bert Peretz of the Department of Physiology and Biophysics at the University of Kentucky. Peretz describes the relationship of aging to the neurological functioning of the brain:

> It is well known that with increased age some regions of the CNS, e.g., brainstem structures, display minimal expressions of aging and are functionally maintained throughout the life of an animal. In contrast, cortex and other higher centers show signs of reduced or impaired function and even cell death. This indicates that the

> effects of age are diverse in different brain regions. (655)

Almost two decades later in 2008, investigator D. H. Ffytche from the Centre for Neuroimaging Sciences in London published a review article in the journal *Cortex* entitled "The hodology[9] of hallucinations." The author explains the complex neurobiological aetiology of visual and auditory hallucinations:

> Patients prone to hallucinations have complex, task-specific hodological abnormalities that persist between hallucination episodes. During hallucinations, topological increases in activity are found whose location defines hallucination content and modality. Whether these activity increases are accompanied by transient hodological change is unclear. (Ffytche 1067)

Although a great deal of research is being conducted into the neuroscience of visual hallucinations as well as the neurobiology of the aging brain, visual hallucinations themselves are not fully understood.

Anecdotal evidence supports the presence of visual hallucinations occurring at the end of life when no discernable pathology is present in the patient. Regardless of whether one believes that these hallucinatory events are divine messengers or occur as a result of a neurobiological signaling process, it is clear that as one nears the end of life, otherworldly experiences are normal. Thus far in the 21st century, the language of the sacred provides the vocabulary to voice the mysterious experiences that shroud the time of dying. Writing in the 2005 Hospice Foundation of America publication, *Ethical Dilemmas at the End of Life,* Senior Research Fellow at the Kennedy Institute of Ethics Cynthia B. Cohen explains: "Religion has served for centuries as one of the major standard-bearers on matters of life and death" (19). In the same publication, Professor at Yale University and Director at the Center for Humans and Nature Bruce Jennings writes:

> Religious and cultural traditions give individuals a language with which to comprehend and communicate their experience, a lens through which to perceive themselves and the world, and a repertoire of meanings and symbols with which to organize their experiences and make them cohere into some kind of whole. (95)

The Mind-Body Relationship

In "The Psychology of the Child Archetype," C. G. Jung wrote: "The symbols of the Self arise in the depths of the body and they express its materiality every bit as much as the structure of the perceiving consciousness" (*CW* 9i: 291). Since Jung's time, research in the field of human neuroanatomy has made innumerable contributions to knowledge of the complex systems at work in the human body. By 1990, researchers had proven that not only was the brain in its entirety affected by aging but that different regions of the brain aged at different rates. Peretz questioned, "Does the nervous system, as it gets older, 'sense' that other tissues are aging and then accommodate to these changes?" (655). If the answer to Peretz's question is affirmative, then one could argue that the nervous system does in some way not only sense tissue senescence but organismal senescence as well.

Beginning in the last decades of the twentieth century, scientific research into the neurobiology of the mind/brain relationship has been explored in earnest and has begun to prove the insightfulness of the claim made by Jung over fifty years ago.

In 2005, the question raised by Peretz in 1990 began to be answered by researcher Stefan Wiens. Writing in *Current Opinion in Neurology,* Wiens described how "many theories of emotion have postulated a close relationship of the feedback of physiological changes and their perception with emotional experience." (442). Wiens hypothesized,

> Consistent with recent theories of emotion, evidence from brain imaging supports the notion that centrally integrated feedback from the whole body plays a role in emotional experience. Because research on neural correlates of emotional experience is at an early stage, the hypothesized model of potential causal links between interoception and emotional experience might serve as a helpful guide to future research. (442)

Researchers in the emerging field of *interpersonal neurobiology* needed to create new vocabulary to be able to discuss and describe the phenomena being studied: the new language included words such as *interoception.* In his book *The Psychophysiology of Self-Awareness,* Professor of Psychology at the University of Utah in Salt Lake City, Alan Fogel, defines this new term: "Interoception is the technical term for the ability to feel one's own body states and emotions" (39).

The stories one tells can emerge from no source other than one's own body. Widely published attachment theorist and Executive Director of the Mindsight Institute, Daniel J. Siegel, describes the field of *interpersonal neurobiology* as one that draws on wide ranging scholarship. Seigel writes, "Interpersonal neurobiology embraces a wide array of ways of knowing, from the broad spectrum of scientific disciplines to the expressive arts and contemplative practices" (*Mindful* xvii). One's lived experience, understood and shaped through one's own perceptions, has been shaped by unique experiences, perceived through one's own senses, and ultimately expressed by one's own breath. One's voice, created by one's own breath causing a vibration of the one's individual larynx, creates a sound that is uniquely recognized by others as that of a particular individual. Writing in a work co-authored with Stanley Keleman entitled *Myth and the Body,* Joseph Campbell explains:

> For me, mythology is a function of biology… a product of the soma's imagination. What do our bodies say? And what are our bodies telling us? The human imagination is grounded in the energies of the body. And the organs of the body are the determinants of these energies and the conflicts between the impulse systems of the organs and the harmonization of them. These are the matters of myth. (3)

The ability to inhale and exhale, the size of one's chest wall, gender; these are only a few contributors to the human voice. The sounds one makes and the stories one tells are woven tightly together with the experiential and physiologic history of one's own body.

Religious traditions in the United States in the twenty-first Century

In 2007, a Pew Forum on Religion and Public Life survey described the religious landscape of the United States as being "both very diverse and extremely fluid" (Pew 5). Many faith traditions are practiced in the U.S.; however, the predominant ones are the three Abrahamic faiths, with 78.4% of Americans self-reporting as Christian, 4.7% identifying themselves as Jewish, and 0.6% reporting themselves as Muslim (Pew 5). Although the practice of each of the Abrahamic faiths is quite different from the others,

many similarities undergird the teachings of the three religions. Judaism, Christianity, and Islam, each a monotheistic religion, consider the prophets of the Old Testament to be primary sources. Additionally, each of these Semitic religions understand Abraham (among others) to be both their patriarch and a prophet. Jennings writes:

> These traditions vary greatly on the surface, so to speak, but perhaps at a deeper level they tend to converge on some similar themes, or "core values." The subjects of death, dying, pain, suffering, care, dignity, and peace at the end of life may in fact lead to that terrain where our diverse humanness recedes and our common humanity comes to the fore. (95)

What are the Abrahamic Faith Traditions and what is their role in the end of life process?

Peter Pitzele, a member of the faculty of both The Jewish Theological Seminary and Union Theological Seminary in New York City, describes the central position of Abraham in religious and spiritual traditions:

> The origins of patriarchal spirituality are to be found in the mythic figure of Abraham. His life story is a paradigm upon which the lives of all subsequent biblical protagonists are variations. Moses, the prophets, and Jesus Christ are all descendants of Abraham, and not only in a successional sense. The stages of Abraham's story, the ordeals he faces, and the tasks he undertakes are repeated in the biographies of the saints, the spiritual iconoclasts, the Western shamans, white medicine men, and twelve-step devotees. The very idea of a special relationship between the soul and God, a relationship that may be sustained over time, experienced as personal, even filial, originates with Abraham. (81-82)

The *Catholic Encyclopedia* explains the role of Abraham in the lineage of Jesus Christ:

> The generation of Jesus Christ is traced back to Abraham by St. Matthew, and though in Our Lord's genealogy, according to St. Luke, he is shown to be descended according to the flesh not only from Abraham but also from Adam. ("Abraham")

Claiming Jesus to be from the lineage of Abraham and further back to Adam establishes Jesus as having a direct ancestral link to God Himself. In an article published in the *Journal of Biblical Literature*, former Professor of Religion at Dartmouth College and current president of Carleton College Robert Oden Jr. discusses the importance of both lineage and family in the book of Genesis. Oden quotes anthropologist and founder of Department of Anthropology at Rutgers University Robin Fox:

> In many societies, both primitive and sophisticated, relationships to ancestors and kin have been the key relationships in the social structure; they have been the pivots on which most interaction, most claims and obligations, most loyalties and sentiments, turned. (194)

Followers of Islam believe Abraham to have been a prophet and believe that, like Jesus, the prophet Muhammad descended from the line of Abraham. Describing the origins of Abraham's influence, the *Britannica Encyclopedia of World Religions* concludes,

> The figure of Abraham in Islam was formulated from biblical and rabbinic narratives current in Arabia, Syria, Iraq, and Egypt during the 7th to 8th centuries CE. The

> Qur'an which mentions the name of Abraham more than 60 times [compared to around 130 times for Moses, some 20 times for Jesus Christ, and less than 10 times for Muhammed], depicts him as the prototypical prophet - the intimate of God who endured opposition from his own people to promote true religion. (7)

With over 80% of Americans self-identifying with the Abrahamic faith traditions, there can be little doubt that the testamentary traditions found in these faiths are germane to the study of death and dying.

In his book *Last Words: Variations on a Theme in Cultural History*, author and Professor of German Art and Culture at Harvard University, Karl S. Guthke explains how last words are important:

> Last words surround us everywhere - this is the obvious conclusion from the wide, and somewhat haphazardly assembled, variety of observations on the vitality of last words in our everyday culture. Nor is this a phenomenon only of the present; as indicated, the vigorous present-day life of the institution of last words is preceded by a tradition dating back to antiquity and biblical times. (48)

Last words are traditionally understood to be the way one can pass on particular teachings or lore to the next generation. Guthke continues:

> One might say that such serious attention over the millennia to what is said with the last breath, the passing on of such lore from generation to generation, is nothing less than the very idea of culture itself - of its self-awareness, its self-confirmation, and its insurance of its future. Culture is memory; what is remembered, lives; and we remember what we consider significant. (48)

Guthke highlights the importance of the last word traditions insofar as the words themselves may perhaps pass on a certain cultural wisdom. But what about the dying person who seems to have little or nothing to say at the end of life?

I contend that the soul of each and every human being not only has the right to be acknowledged in its death throes, but I would argue that the psyche of each individual works hard to be noticed and attended to in this delicate time of life. Although there is little doubt that last words are often mined for their wisdom, I argue that human physiology, the wisdom of the body itself from which these words emerge has been overlooked in the process of seeking cultural wisdom. It is the universal voice of the dying body that I seek to illuminate in this project.

The Testament of Abraham

The life of Abraham the patriarch and prophet has been mythologized throughout religious history and stories about the end of his life have been imagined and written in both early apocryphal and pseudoepigraphic works. *The Testament of Abraham* (heretofore referred to as TA or Tab) is an ancient work of fiction that has been shown to have been widespread throughout the Mediterranean Basin at the end of the first century AD. In his chapter,"The Testament of Abraham," published in *The Cambridge Commentaries on Writings of the Jewish and Christian World*, New Testament scholar E. P. Sanders explains: "The Testament of Abraham is a Jewish work, probably of Egyptian origin, which is generally dated to the latter part of the first century AD" (56). Dale C. Allison Jr., a New Testament scholar and professor at Pittsburgh Theological Seminary,

supports the above claim regarding the widespread popularity of *Testament of Abraham* by describing the existence in seven different linguistic sources of over two dozen written versions of the story. Variations include:

1. Two recensions in Greek, Recension Long (hereafter RecLng) and Recension Short (hereafter RecShrt.) Both are understood to derive from a more ancient Hebrew text written sometime between 70 BCE-70 CE. (4).

2. A Coptic version, dating to a 5th c. Sahidic papyrus (8), emerging from the Copts of Northern Egypt.

3. Approximately half a dozen Arabic versions, only one of which has been translated into English. The translated version derives from the Coptic version (9).

4. Two Ethiopian versions, one Falasha (The Jews of Abyssinia) and the other Christian (9).

5. A Slavonic text dating back to the 10th c or earlier emerging from the Russian Church (9).

6. And most recently the 18th and 19th c. Romanian version. Regarding this particular version, Allison explains, "TA was popular in eighteenth and nineteenth century Romania, and it is represented by about two dozen manuscripts in the Biblioteca Academiei Romane in Bucharest" (10).

To date, not all of these compositions have been translated from their original languages into a common language. Unfortunately such linguistic hurdles make it difficult, if not impossible, to compare and contrast the textual variants fully. However, what has been discerned by religious scholars is the inter-dependent nature of the different texts. E. P. Sanders asserts:

> TAb [Testament of Abraham] exists in two major recensions, and the original text is not recoverable. The longer recension (TAb A) is attested by a great number of Greek manuscripts and supported on the whole by a Rumanian version. The shorter recension (TAb B) is attested by several Greek manuscripts and supported on the whole by the Slavonic version, another Rumanian version, and by the Coptic, the Arabic and the Ethiopic versions. (56)

He continues:

> It seems most likely that the longer recension better reflects the contents of the original work, although the shorter recension may in some cases preserve the earlier wording. Substantial verbatim agreement between the two recensions in Greek indicates that they have an ultimate common ancestor . . . . (56)

Much academic debate exists as to whether this document is originally Jewish, Christian, or written by a Jewish Christian. Allison lays out this debate quite concisely in a chapter entitled "Jewish or Christian." There he explains, "One senses both a Jewish original and a Christian revision, but it is often impossible to know exactly what belongs to which" (31). He elaborates:

> That TA does not exalt Judaism over its pagan rivals is consistent with the book borrowing from Greco-Roman mythology and betraying no anxiety in doing so. It is

> also consistent with the borrowed materials not serving any obvious theological or apologetical agenda. . . . The synthesis of traditions - Turner rightly thinks that "tolerance and syncretism" characterize our work - is evidently not the product of an attempt to integrate two separate worlds. . . . They instead seem to reflect an environment in which the biblical world and Greco-Roman mythology had already been integrated. (30)

Moreover, Gruen asserts, "TA reflects 'an attitude that transcends sectarianism and dismisses barriers between Jews dwelling abroad and their pagan neighbors'" (193).

The geographic and religious diversity that informs the *Testament of Abraham*, in conjunction with the universal acceptance of Abraham as the patriarch of Judaism, Christianity, and Islam, make this composition particularly apropos to a study of the time of dying in a culturally and religiously diverse nation such as America. For the sake of continuity and clarity, I will use the scholarly convention of TA when referring to the text of the *Testament of Abraham*. Many religious scholars agree that the long recension is a fundamental source, and therefore I will use the Greek long recension as the primary text for this exploration and will denote that as RecLng (Allison 12). In several places in the story it is the Greek Short Recension which provides details not otherwise included in RecLng (Allison 13). When called for, I will use the text of the Greek Short Recension to highlight certain sections and will denote those occasions with a parenthetical reference to RecShrt. Regarding the use of both texts simultaneously, the repetition found in the longer text makes it easier for the modern reader to make sense of the story whereas the short text may include sections believed to be closer to the original Jewish text. (Allison 12-27).

The text begins:

> Abraham lived the measure of his life, nine hundred and ninety-five years, and all the years of his life he passed in quietness, meekness, and righteousness. The just man was altogether very kind to strangers. For he pitched his tent at the crossroads of the Oak of Mamre where he welcomed all - rich and poor, kings and rulers, the crippled and the helpless, friends and strangers, neighbors and travelers. These the pious and all-holy, righteous, and hospital Abraham welcomed equally. But even upon this one came the common and inexorable bitter cup of death and the uncertain end of life. (RecLng 1:1-1:3)

The mythic figure of Abraham is understood by scholars to be an allegorical representation of a spiritually pure man; indeed *The Britannica Encyclopedia of World Religions* claims that Abraham is a "model of virtue" (7) "[W]ithin Judaism," asserts the *Brittanica*, "not only is Abraham the first to recognize the true God, on some level his very righteousness causes God to begin the process of revelation" (7). The biblical stories of Abraham and the author of the TA underscore Abraham's faith in God as the core belief system which motivates his every action.

The author of the TA uses the figure of Abraham, the man who has committed no sins before God, to illustrate two archetypal aspects of the dying trajectory. First, as will be shown in the textual analysis of the TA, the behavior of Abraham in this story is easily recognizable as a universally human response when one confronts the surprising reality that one's lifespan is not only finite, but its very finitude is completely determined by

God. Second, the dramatist skillfully contains the mythic figures of God, Michael, Abraham, Isaac, and Sarah in the arch-image of the time of dying. Greene explains, "The arch-image becomes inseparable from the action it contains. The experience of whoever moves through it colors the image just as the image controls the experience" (12). In the TA, the reader learns that in the Abrahamic faith traditions it is believed that God and God alone determines the shape of one's dying trajectory. Gruen discusses the allegorical nature of the composition:

> The central issue in TA is Death. The focus on Abraham is ultimately incidental. The patriarch is not, so to speak, his biblical self but rather everyman, the human being faced with death, who is, no matter how pious, anxious about quitting this life. (50)

Although Abraham is able to color and change his experiences at the end of his life experience, even he, the sinless man, is unable to effect change in the fact that he will die and that the time of his death will be divinely determined.

The introductory paragraph of the text refers to the crossroads of the Oak of Mamre (Gen. 13:18), the place in Hebron where Abraham built an altar to Yahweh. However, in *An Illustrated Encyclopedia of Traditional Symbols*, J. C. Cooper explains that in a depth psychological sense, the crossroads are understood to be a place of choice, or perhaps the union of opposites; the meeting place of time and space ("Crossroads" 46). Cooper explains the oak tree to be a symbol of strength, protection, and truth ("Oak" 121). In the Christian tradition, the oak can be understood to be "[a] symbol of Christ as strength in adversity; steadfastness in faith and virtue" ("Oak" 121). Abraham, like many other Jews of the time, spent much of his life in diaspora wandering from Mesopotamia towards the Mediterranean Sea (Gruen vii). Yet the author of this text places the patriarch at home in his tent; Abraham is no longer wandering:

> So the Master God called his archangel Michael and said to him: "Go down, commander-in-chief Michael, to my friend Abraham and speak to him concerning his death, so that he might put his affairs in order. For I have blessed him as the stars of heaven and as the sand by the shore of the sea. He has a prosperous life with many things and is exceedingly rich. Yet above all other people he has been righteous, good, hospitable, and strongly affectionate to the end. Now you, archangel Michael, go from here to my friend Abraham, my beloved, and announce to him his death and assure him of this: at this time you are about to go out of this futile world, and you are about to depart from the body, and you will go to your own Master among the good. (RecLng 1:4-1:7)

In the Abrahamic faith traditions, the *Master God* is both unnamable and unknowable. At the same time, He is understood to be masculine and in some way greater than and external to the human body. In "Answer to Job," Jung writes "God is an obvious psychic and non-physical fact, i.e., a fact that can be established psychically but not physically" (*CW* 11: 751). Writing in *A Critical Dictionary of Jungian Analysis,* Jungian Analysts Andrew Samuels, Bani Shorter, and Fred Plaut assert that

> in psychological terms, Jung posited the reality of a God-image as a unifying and transcendent symbol capable of drawing together heterogenous psychic fragments or uniting polarized opposites. Like any image, it is a psychic product different from the object which it attempts to represent and to which it points. The God-image points to

> a reality that transcends consciousness, is extraordinarily numinous, compels attention, attracts energy, and is analogous to an idea that in similar form has forced itself upon mankind in all parts of the world and in all ages. As such, it is an image of totality and "as the highest value and supreme dominant in the psychic hierarchy, the God-image is immediately related to, or identical with, the Self" (*CW* 9ii: 170). (61)

It is noteworthy that at the end of Abraham's life, God chooses to send a gentle and subtle messenger in the form of the Archangel Michael rather than speak to Abraham directly, as he has in the past. Rather than present Himself in His full power, God treats Abraham with a certain gentleness in this encounter. Biblically, the Archangel Michael is understood to be the Commander in Chief of the angels as well as the angel of love and kindness (Solomon 72). J. C. Cooper writes: "Angels are Messengers of God; intermediaries between God and man; powers of the invisible world; enlightenment" (12). Lewis D. Solomon, ordained rabbi and lawyer and Professor at The George Washington University Law School claims:

> Biblical and rabbinic literature contain numerous references to various angels -
>
> . . . . In the Torah, the term "angel" generally connotes a messenger. Angels are spiritual forces given human form. (70)

God instructs the angel to tell Abraham that it is time to put his affairs in order. Regarding this command by the Lord, scholar Anitra Bingham Kolenkow explains that "setting one's house in order" is another way of telling Abraham to make a *testament* (140). In antiquity, explains Harm W. Hollander, a *testament* consists largely of a farewell speech focused on the confession of one's sins (71). Kolenkow relates that such a testament had to be given on one's death-bed for the rabbis to consider the confession to be valid (150). Clearly, the day that Abraham receives this message is intended to herald his last days on earth, and he is to be instructed to create his death bed confessional. The TA continues as the Lord reviews the qualities of Abraham that have so endeared him to the divine:

> For I have blessed him as the star of heaven and as the sand by the shore of the sea. He has a prosperous life with many things and is exceedingly rich. Yet, above all other people he has been righteous, good, hospitable, and strongly affectionate to the end. Now you, archangel Michael, go from here to my friend Abraham, my beloved, and announce to him his death and assure him of this: at this time you are about to go out of this futile world, and you are about to depart from the body, and you will go to your own Master among the good. (RecLng 1: 5-7)

In this speech to the archangel, God recounts the goodness of Abraham's character with love and affection. God does not recount the deeds of the man's life; indeed, the deeds of Abraham are not even mentioned here. The textual emphasis on the piety and goodness of Abraham's character, rather than on his deeds, is a significant change of focus from the earlier hero story of Gilgamesh and Enkidu. The gods of the Gilgamesh epic eulogize Enkidu by recounting his deeds, rather than his personality, whereas the God of Abraham finds one's character at the end of life to be of primary importance. From the *Testament of Abraham*, one understands that, within this tradition, it is the character of a person that matters most at the end of life.

The text resumes:

> After the Lord gives this speech, Michael assumes human form and descends to meet Abraham. Abraham does not recognize the angel as anything more than a handsome soldier but Abraham's language implies that he is aware that there is something different about this particular man. Abraham says, "Greetings, most honorable soldier, resembling the sun and most handsome above all sons of men." (RecLng 2:4)

The Zohar, a focal text of the Kabalistic tradition in Judaism describes exactly what is occurring in Abraham as his life comes to a close. Solomon explains :

> According to the [Jewish] mystical tradition, . . .[W]hen a man's [judgment] hour is near, [an angel]commences to call to him, and no one knows [except] the patient himself, as we have [learned], that when a man is ill and his time is approaching to depart from the world, a new spirit enters into him from above, in virtue of which he sees things which he could not see before, and then he departs from the world. (Zohar II, 218b, qtd. in Living 98)

The discussion up to this point has been informed by the work of Dale C. Allison, Jr., New Testament scholar and professor at Pittsburgh Theological Seminary and Lewis D. Solomon, ordained rabbi and lawyer and Professor at The George Washington University Law School. And although theological commentary carries insights about dying, the unique voices emerging from the fields of depth psychology and neurobiology must also be recognized. In his book *The Religious Function of the Psyche,* Lionel Corbett explains how depth psychology gets to the essence of the sacred:

> We have been so conditioned by our western religious heritage to expect the divine to appear in prescribed ways, such as the Judaeo-Christian forms, that we may not recognize novel or highly personal appearances. Within the traditional heritage, the tendency has been to receive the sacred by means of a prescribed text, sacrament, or ritual. (11)

The visit of the angel to Abraham is the image of a particularly gentle experience of the numinous. At the end of Abraham's life, God does not appear dramatically in the form of a burning bush (Exod. 3:1), a whirlwind (Job 38:1), or a whirlwind and a chariot of fire (2 Kings 2:12). To the elderly Abraham, God sends a gentle messenger, the archangel Michael. The experience of God, writes Jung, "has shocked people out of their wits" (*Visions* 391), yet Michael does not shock Abraham. Rather, this angelic communication is so subtle as to go seemingly unnoticed by Abraham, but Abraham's language gives the reader the hint that he is, in some subtle way, aware of the heavenly nature of his visitor. Allison writes,

> The comparison of heavenly figures with the sun is widespread. . . . There is irony here, for even though Abraham recognizes that his guest is unlike all other human beings, he does not yet realize that he is an angel and so a "son of God." (94-95)

As the story continues, God performs miracles that Abraham notices yet appears to be unable to make sense of what he is experiencing:

> They [Abraham and Michael] went away from the field to his [Abraham's] house. Alongside that road stood a cypress tree. According to the commandment of God the tree cried with a human voice and said: "Holy holy holy is the Lord, who calls those

who love him." (RecLng 3: 1-3)

Abraham heard the tree speak but he "hid the mystery, supposing that the Commander-in-Chief had not heard the voice of the tree" (3.4). The Greek short recension elaborates on this section:

> And they heard a voice from the branches which said, "Holy (are you) who brings the news." And Abraham heard the voice, and he kept quiet before him; and he hid the mystery in his heart, saying, "What then is this mystery?" (RecShrt 3:3-4)

J. C. Cooper helps clarify the symbol of the cypress tree that is found in this ancient text. Symbolically, Cooper explains, the cyprus tree, is "largely a death and mortuary emblem" ("Cypress" 48-49) even as, Allison writes, "Abraham's tree cryptically foretells his impending death" (110-111). The text describes an Abraham who has some awareness that something mysterious is afoot, both in his reference to the sun in his greeting to his holy visitor, and now, as he hears the words of the tree.

In a depth psychological sense, the divine messenger from God is a symbol of a deeper intuition experienced by Abraham. In "The Tavistock Lectures," Jung suggests, "There is such a thing as unconscious perception, or perception by ways which are unconscious to us" (*CW* 18: 54). "Intuition," Jung writes, "seems to be very mysterious . . . . [I]ntuition does not go exactly by the senses, but it goes via the unconscious, and at that I leave it and say 'I don't know how it works'" (*CW* 18: 25-6).

One can understand the psychological symbol of an angel as carrying messages from the ineffable, whether as a symbol of one's inner Self or an outer God-image, into the consciousness of the one being visited upon. In "The Soul and Death," Jung writes,

> At all events experience shows that religions are in no sense conscious constructions, but that they arise from the natural life of the unconscious psyche and somehow give adequate expression to it. This explains their universal distribution and their enormous influence on humanity throughout history, which would be incomprehensible if religious symbols were not at the very least truths of man's psychological nature. (*CW* 8: 805)

Six decades after Jung's initial work, in the 1990s, the field of interpersonal neurobiology emerged and scientific work began to demystify the physiology of intuition. In Abraham's heart he has the feeling that something is awry, yet he is unable to make sense of his experience. Fogel explains these two types of self-awareness; one a way of knowing and the other a way of feeling:

> Thinking about the self, called **conceptual self-awareness,** is not the same as feeling the self in embodied self-awareness. Embodied self-awareness involves **interoception** - sensing our breathing, digestion, hunger, arousal, pain, emotion, fatigue and the like - and the **body schema** - an awareness of the movement and coordination between different parts of the body and between our body and the environment. (10)

Physiologically, explains Fogel, conceptual self-awareness and interoception employ at least two different physiologic pathways in the body. He describes the source of self-awareness as emerging from the nervous system:

> Interoception begins with receptors, in different body tissues, for sensing internal state - **ergoreceptors**. These receptors are designed to convert different forms of chemical and physical stimulation into neural signals for transmission to the spinal cord and brain. (45)

Perhaps the angel is the first intuitive sense for Abraham that something within his body is changing and is ending, the conceptual self-awareness that has not yet become embodied self-awareness.

A similar experience can be seen in the patient who experiences intermittent and mild physical symptoms yet appears to ignore them. It is almost a cliché in our culture to hear the story of the man who has ignored intermittent chest pain, seeming to forget all about it in between bouts of discomfort, then ends up in the emergency room with his wife saying, "I have been telling him for years to get that pain checked out by his doctor!" I argue that those intermittent gentle pangs of bodily discomfort can be understood as the physical manifestations of one's lived experience of an angelic messenger from God. It is the deeper physiology of this hypothetical patient that sends messages to him via his nervous system that something is amiss in his body and is worthy of his attention.

Returning to the ancient TA: as Abraham and Michael walk through the fields the reader slowly realizes that the end of Abraham's life is approaching. In his book, *The Idea of the Holy*, Rudolph Otto describes the nature of such experiences as *numinous* or *experiences of the mysterium tremendum* (12). He writes, "The feeling of it may at times come sweeping like a gentle tide" (12). In Abraham' story, Isaac, the son of Abraham, recognizes the divine nature of the visitor and informs his mother of the truth of this soldier:

> Isaac, seeing the appearance of the angel, said to Sarah his mother: "My lady mother, behold, the man sitting with my father is not a son of the people who dwell on earth." And Isaac fell at the feet of the incorporeal one. (RecLng3:5-6).

As chapter three of the text of Abraham comes to a close, Michael blesses Isaac, Abraham performs the ritual of washing the feet of the visitor, and Abraham witnesses yet another miracle:

> Then Abraham came and washed the feet of Michael, the Commander-in-Chief. Abraham was deeply moved and he wept over the stranger. And Isaac, seeing him weep, also wept himself. And the Commander-in-Chief, seeing them both weeping, also himself shed tears with them. Now the Commander-in-Chief's tears fell in to the vessel and they became precious stones. Abraham, when he saw what had happened, was dumbfounded; and he furtively took the stones and hid the mystery, keeping it in his heart alone. (RecLng 3:9-12)

First a talking tree and now tears that turn to precious stones; still, Abraham is dumbfounded. Unable to comprehend what he is experiencing, his feeling sense is aware of a mystery but Abraham's thinking self is unable to embody or make sense of the premonitory death messages being sent to him from a deeper source. Allison uses the word *denial* to describe what is occurring:

The son is more insightful than the father. Soon we shall see that Sarah also identifies Michael before Abraham. Abraham may be pious and large-hearted, but he is either dim

with age or in denial. (117)

Kübler-Ross also uses the word *denial* to describe this sort of behavior in the dying process:

> Among the over two hundred dying patients we have interviewed, most reacted to the awareness of a terminal illness at first with the statement, "No, not me, it cannot be true." This *initial* denial was as true for those patients who were told outright at the beginning of their illness as it was true from those who were not told explicitly and who came to this conclusion on their own a bit later on. (*On Death* 38)

The implication is that such individuals know that they are dying but in some way choose not to accept that information. Yet, denial implies intention, as though a conscious choice is being made not to accept the obvious. *A Dictionary of Psychology* defines *denial* to be

> a defense mechanism involving a disavowal or failure consciously to acknowledge thoughts, feelings, desires, or aspects of reality that would be painful or unacceptable, as when a person with a terminal illness refuses to acknowledge the imminence of death. ("denial" unpaginated)

In *The Ego and the Id,* Sigmund Freud alludes to the unconscious nature of a defense mechanism:

> We have come upon something in the ego itself which is also unconscious, which behaves exactly like the repressed - that is, which produces powerful effects without itself being conscious and which requires special work before it can be made conscious. (9)

Chapters 1-3 of the *Testament* highlight the disparity between Abraham's subjective feeling that something is amiss and his ability to make cognitive sense of what he is experiencing. In *From Axons to Identity,* Todd E. Feinberg provides a current working definition of denial from a psychiatric perspective:

> The current psychiatric diagnostic manual, the *DSM-IV-TR,* states that adults denial is apparent when "The individual deals with emotional conflict or internal or external stressors by refusing to acknowledge some painful aspect of external reality or subjective experience that would be apparent to others." (60)

Perhaps denial is not only a response to an archetypal situation, but additionally can be understood to be a behavioral manifestation of the universally human physiological change that occurs at the end of life. Feinberg continues:

> The earliest and most basic [form of denial] is the simple ignoring of perceptual information. This mechanism may be an outgrowth of basic perceptual processes present from the first month of life onward that allow the developing nervous system to screen out unpleasant stimuli. (60-61)

Denial impedes the learning process. In his work *Synaptic Self,* professor of Science at the New York University Center for Neural Science Joseph LeDoux argues:

> An innate capacity for synapses to record and store information is what allows systems to encode experiences. If the synapses of a particular brain system cannot change, this system will not have the ability to be modified by experience and to

> maintain the modified state. As a result, the organism will not be able to learn and remember through the functioning of that system. (9)

I argue that the physiology of the dying body creates a bodily state such that one is unable to process information regarding one's own imminent demise and therefore enters into a state of denial.

As chapter 4 of the TA begins, Abraham and Isaac welcome Michael into their home and lay out a beautiful meal for him. Unfortunately, Michael cannot eat earthly food and excuses himself as though to urinate but quickly returns to the heavens to speak with God. The Angel concedes:

> Lord, Lord, may your sovereignty know that I am unable to proclaim the notice of death to that just man. For I have not seen a man like him on earth-merciful and hospitable, just, truthful, God-fearing, abstaining from every evil deed. And now know, Lord, that I am unable to proclaim the notice of death. (RecLng 4:6)

God replies:

> I will put the holy spirit upon his son Isaac, and I will cast the notice of death into Isaac's heart as in a vision so that in a dream he will see the death of his father, and Isaac will announce the vision, and then you can interpret it. And he will know his end. (RecLng 4:8)

The dream being heaven-sent is reminiscent of the dream of Enkidu in which he learns that he is to die for his transgressions. However, in the TA one has no evidence that Abraham's death has been brought about by God's anger. The death of Abraham appears to be a death of natural causes; he has reached old age and it is time for his earthly body to die. There continues to be a certain gentleness in the way that God communicates with Abraham in that the dream in this story is sent to Isaac, the son of the dying man and not the fragile dying man himself. Surely, there is ample biblical evidence that God could end the life of Abraham quickly and traumatically if He chose to. But that is not what happens.

> As the feast ends, Abraham and Michael each bless Isaac and send him off to bed:
>
> Then Isaac, receiving the blessing from them went to his own chamber and laid down on his couch. And about the third hour of the night God cast the notice of death into Isaac's heart as in a dream. Waking up, Isaac rose up on his couch and running to the dining chamber where his father was sleeping with the archangel. (RecLng 5:5-7).

Isaac is awakened by a dream in the third hour of the night. The TA tells us that this dream has been sent to Isaac directly from God (RecLng 4:8). Cooper writes, "The 'power of three' is universal and is the tripartite nature of the world as heaven, earth, and waters; it is man as body, soul, and spirit; birth, life, and death" ("Numbers" 114). Isaac comes in to see Abraham asleep with the angel. Paracelsus describes the sleep of "Adam and Moses and others" as a time of communion with the *lumen naturae*:

> [I]t is the Light of Nature which is at work during sleep and is the invisible body and was nevertheless born like the visible and natural body. But there is more to be known than the mere flesh, for from this very innate mentor dwells in this innate spirit. (qtd. in Jung, "Paracelsus" 148 7cn)

Psychologically, the image of Abraham sleeping with Michael can be understood to be the incubation of Abraham's dreaming psyche with an angelic messenger from deep within his own soul. An article entitled "Angel" in *The Book of Symbols* published in 2010 by The Archive for Research in Archetypal Symbolism (ARAS) claims: "In near-death experiences, angelic 'beings of light' have lovingly encompassed the dying, returning them to life" (682). The entry continues, "The profound nature of angelic encounter is one of numinous insight or immediate, portentous intimation of possibilities consciousness scarcely comprehends" (682). Prior to this intimate union between Abraham and Michael, Abraham's waking mind is unable to make any sense of the message that the angel has come to convey. In "Paracelsus as a Spiritual Phenomenon," Jung explains: "The light of nature is the *quinta essentia,* extracted by God himself from the four elements, and dwelling "in our hearts" (*CW* 13: 148). Abraham does not dream during this night, yet the representation is one of the prophet lying in sleep with the messenger of God, thereby affirming the presence of the Light of Nature during even the dreamless sleep of the dying Abraham.

The text continues as Isaac runs to the door of his father and says,

> "Father, father, rise now and open to me quickly, so that I might enter and hang on to your neck and say farewell to you before they take you from me." Then Abraham, arising, opened to him; and Isaac entered, hung on his neck, and began to cry with a loud voice. Abraham, being deeply moved, also himself cried loudly. And the Commander-in-Chief, seeing them weeping, likewise cried with them himself. Now Sarah was in her tent and heard his weeping and came running to them, and she found them embracing and crying. And Sarah wept . . . . (RecLng 5:8-11)

The true identity of Michael is now revealed to Abraham, and Abraham questions Isaac as to the nature of his dream. Isaac responds:

> Behold, my lord, I saw in this night the sun and the moon above my head, and their rays encircling me and illuminating the way for me. And while I was thus seeing these things and rejoicing, I saw the heaven opened, and I saw a glorious man coming down out of heaven, shining more than the sun. And that sun-like man came and took the sun from my head; and he went up into the heavens from whence he had come. And I grieved greatly that he had taken the sun from me. After a moment, as I was still grieving and anxious, I saw that glorious man coming out of heaven a second time; and he also took from me, from my head, the moon. I wept greatly and implored that glorious man and said, "No, lord, do not take my glory from me. If you must take the sun from me, at least leave the moon over me." But he said: "Let me take them up into the upper kingdom, because he wants them there." And he took them from me; but he allowed their rays (to stay) upon me. (RecLng 7:2-7:7)

As Michael was commanded by God in Chapter 4:8, he interprets the dream of Isaac:

> Hear, righteous Abraham. The sun which the boy saw is you, his father; likewise the moon is his mother, Sarah. And the glorious man coming down from heaven is the one sent by God, who is about to take your righteous soul from you. And now know, most honorable Abraham, that you are about at this time to leave behind the world and life and journey to God. (RecLng 7:8-7:10)

By sending the dream to Isaac, not only does Isaac become aware of the imminent death of his father but God ensures that both Isaac and Sarah, those who know and love Abraham, will be with him in his time of dying. As Gilgamesh sat with Enkidu, so Isaac and Sarah will be with Abraham. Additionally, Isaac's dream prepares Isaac for the change that will occur in his own life after the death of his father. Von Franz writes, "One of the functions of dreams is a preparation for some approaching phase or threshold in life. Death is such a threshold, for which the unconscious wants to prepare us" (*Dreams* ix). Dreams of dying individuals will be further discussed in the section on that topic; however, of note here is that this ancient text suggests those who are closely emotionally involved with a dying individual may experience prophetic dreams such as the one experienced by Isaac.

Fully understanding now that his own life is coming to an end, Abraham angrily defies Michael:

> Abraham said to the Commander-in-Chief: "Oh latest wonder of wonders! And for the rest, is it you who are about to take my soul from me?" And the Commander-in-Chief said: I am Michael, the Commander-in-Chief, who stands before God. And I was sent to you so that I might proclaim the notice of death to you; and only then shall I return to Him just as I was commanded. But, Abraham said: Now I know that you are the angel of the Lord, and that you were sent to take my soul. Yet, I will not follow you. Now just what you command - you do it! (7:10-7:12)

This angry rebuff of the archangel is a surprising turn in the previously pious and obedient behavior of Abraham. Allison writes of his response:

> Readers naturally infer that, however pious Abraham may be, he . . . nonetheless shares the normal fear of death. He simply does not wish to exit the earth. At this point, then, Abraham ceases to be saint and becomes instead common humanity. (174)

Kübler-Ross highlighted the universality of anger in the dying process: "When the first stage of denial cannot be maintained any longer, it is replaced by feelings of anger, rage, envy, and resentment" (*On Death* 51). The anger of Abraham erupts a moment after he moves from intuition to knowing, or physiologically speaking, from a state of interoception to a state of conceptual self-awareness (Fogel 10). I assert that this anger is the manifestation of a chemically mediated byproduct of the physiological processes involved as Abraham makes the shift from not knowing to knowing, from interoception to conceptual self-awareness.10

Michael returns to heaven and, with some indignation, explains to God that Abraham has refused the commandment from God to accompany the angel into heaven. God again sends Michael to Abraham, this time with a lengthy message. God extols the many blessing given to Abraham by God: Isaac, Sarah, land, prosperity, and more. Then God speaks of the universality of death; the mortality of all of the descendants of Adam and Eve as the fate that befalls all humans. Lastly, God speaks of His divine kindness in having sent a gentle messenger to console Abraham at this difficult time. Allison writes:

> Despite death's ubiquity, God has nonetheless kindly chosen to send Michael rather than Death, so that the transition to the upper world might be as painless as possible,

and that Abraham might be fully prepared. (188)

Michael delivers this more forceful message from God to Abraham and, in response, Abraham affirms his reverence for the divine and his awareness of his own insignificance. However, on the topic of the end of his own life, the patriarch quickly enters into the stage defined by Kübler-Ross as *bargaining*. Indeed, chapter 9 is entitled, "Abraham strikes a Bargain." After extolling the virtues of the Most High, Abraham says to Michael:

> One more request I nonetheless request of you. And now, Master Lord, hear my prayer. While I am yet in this body I wish to see all the inhabited earth and all the things made, which you established through one word, Master; and after I have seen these things, then I shall not grieve when I depart from (this) life. (RecLng 9:6-7)

Again, Michael departs and relays the words of Abraham to God:

> Upon hearing these things, the Most High commanded the Commander-in-Chief Michael and said to him: "Take a cloud of light and the angels who are in charge of the chariots, and go down and take righteous Abraham on the cherubic chariot and raise him high into the upper air of heaven that he might see all the inhabited world. (RecLng 9:8)

Michael does as he is ordered; he picks up Abraham in a celestial chariot and takes him on a tour of the whole of creation. The travelers enter into the gates of heaven and see "the first formed Adam . . . sits here in his glory, and he sees the world, as all have come from him" (RecLng 11:9). Together they observe the weighing and judgment of the souls of the deceased by Abel, the son of Adam and Eve acting in the role of divine judge. Over the course of chapters 10-14, Michael guides and explains to Abraham what it is that he is seeing in a fashion reminiscent of the journey of Virgil and Dante in the latter's *Divina Commedia*. Ultimately, in the TA, the voice of the Lord interrupts their reverie:

> The voice of the Lord spoke also to the Commander-in-Chief, "Michael, Michael, my minister, return Abraham to his house, for behold, his end is drawn near, and the measure of his life has come to an end, and he will set in order the affairs of his house and his possessions and all that he wants (to set in order); and then directly you will take him and bring him to me. (RecLng 15:1)

The words of God have a sense of urgency to them. Michael returns Abraham to his home, and soon the patriarch is surrounded by his wife, his son, and his household. And yet again Abraham refuses to follow the Archangel up to heaven. Upon hearing that Abraham has reneged once more, the Lord says to Michael, "Summon here to me Death, the one who has a shameless face and merciless look" (RecLng 16:1). God speaks to Death and commands Death to visit Abraham:

> Go down to my friend Abraham and take him and bring him to me. Yet also now I say to you, that you come to this place without terrifying his soul. Rather take this one with fawning because he is my true friend." Hearing these things, Death went out from before the Most High and put on a brightly shining robe, and he made his countenance like the sun, and his appearance became more beautiful than that of the sons of men. Having put on the form of an archangel, with his cheeks flashing like fire, he went away to Abraham. (RecLng 16:5-6)

Abraham does not recognize Death in this beautiful form. Death exclaims, “I am the bitter cup of Death!” (16:11). Abraham replies:

> No! You are rather the comeliness of the world. You are the glory and loveliness of the angels and of men. You are the most pleasing of all appearances. And you say, “I am the bitter cup of death!” Should you rather not say, “I am the fairest of all good things”? (RecLng 16:12)

Ultimately, Abraham refuses to accept his own death. This time, however, Death merely waits silently. Allison explains:

> We do not learn here whether Death does nothing because he is, as was Michael, confused, or because he is simply being patient in the knowledge that Abraham cannot hold out much longer. In either case, he does not, unlike Michael, return to heaven. (332)

As the TA comes to a close, Death begins to follow Abraham everywhere. Finally Abraham says:

> Go away from me, because I want to rest in my bed” But, Death said, “I will not go away until I take your spirit from you. (RecLng 17:3-4)

Abraham expresses the fatigue that often overcomes one at the end of life. An article published in the *Journal of the American Medical Society* by physicians Yennurajalingam and Bruera of the University of Texas M.D. Anderson Cancer Center explain:

> Fatigue is the most common chronic symptom associated with cancer and other chronic progressive diseases. The assessment and treatment of fatigue at or near the end of life can be complex. Some of the challenges include its subjective nature, with great variability in its source, how it is expressed, and how it is perceived, requiring treatment to be based on patient report of frequency and severity; its multidimensional character; and the limited understanding of its pathophysiology. (295)

In the final chapter of the TA, it is unclear whether Abraham is again stalling for time or if he has become genuinely curious about death. The patriarch engages Death in long discussions about the true appearance of Death himself. In his fatigue, the great patriarch makes a fatal mistake; he asks Death to reveal himself as he appears to sinners. Abraham says, “I beg you, listen to me and show me your savageness and all your putrefaction” (RecLng 17:9). Death tries unsuccessfully to dissuade Abraham from this request: “You are unable to behold my savageness, most righteous one” (RecLng 17:10). Reminiscent of Zeus and Semele, Death sheds his beautiful form, reveals his true image, and Abraham is not able to tolerate the experience. The author writes:

> And, to put it briefly, he [Death] showed him [Abraham] great savageness and bitterness and every fatal disease that brings death untimely. So then from the stench of Death and the great bitterness and savagery seven thousand male and female servants died. And the righteous Abraham came to the faintness of death, so that his breath failed. (RecLng 17:17-19)

Discussion

It is hard to imagine a more eloquent expression of the testamentary tradition as it might

be lived in modern-day America. In his book *Abraham Meets Death,* Jared W. Ludlow explains the meaning of the text: "The *Testament of Abraham* is one of many Second Temple Jewish texts that augment the biblical story of Abraham" (1). Gruen, Ludlow, and Allison agree that the author of this work treats the patriarch with great reverence while at the same time creating a story around him that is filled with humor. Ludlow writes:

> Recension A [Greek Long Recension] used comic elements to surprise and reverse readers' expections as it parodied the testament genre. What one would expect to be a somber, serious occasion - the last testament, or dying words of a patriarch - is actually a humorous tale because it goes against one's expectations for the text. (9)

The *expectations* referred to by Ludlow include pseudoepigraphon such as *The Testament of Isaac, The Testament of Jacob,* and *The Testament of the Twelve Patriarchs* (the death bed statements from each of the twelve children of Jacob) (Hollander 71). The testaments of Abraham's descendants reveal a much more somber and reverential attitude towards the dying process than does the *Testament of Abraham.*

Just as one learns something of the sense of humor of the author(s) of the tale, one also learns of the sense of humor of the listeners or readers. Plato reminds us: "You can discover more about a person in an hour of play than in a year of conversation" (qtd. in McGuire et al. 78). The TA, argues Ludlow:

> contains elements of the testament genre, but it seems to be best understood as using testamental conventions for comic purposes. It has the introductory and closing elements of the testament genre, and seems to place Abraham purposely in many ideal testamentary settings only to have him refuse. (44)

Gruen describes the *Testament of Abraham* as a work of *diaspora humor,* created by Jews in diaspora between the first century BC and the first century AD (182). Of note, these re-imagined stories were not meant to undermine the scriptures. Rather, explains Gruen,

> They [the stories] played to a readership fully conversant with the traditional tales, for whom these alternative versions would supply different insights, provocative interpretations, more lively renditions, or merely fanciful fabrications. (182)

The use of humor as a means of studying a culture is discussed at length by Finnegan Alford and Richard Alford, Professors of Anthropology and Sociology, in their article "A Holo-Cultural Study of Humor" published in *Ethos*, a publication of the American Anthropological Association. The authors explain: "Humor is a complex and ubiquitous human phenomenon" (149). One can learn a great deal about a culture and its values by studying what individuals in a culture find to be amusing. Alford and Alford argue,

> The enormous diversity of humorous expression appears to arise from differences in cultural values and the differential institutionalization of potential humor functions, rather than from fundamental differences in the humor response itself. (162)

A project that seeks to mine the wisdom of the time of dying must of necessity seek to include as many different human responses to the process as is possible. George Bernard Shaw reminds one that "life does not cease to be funny when people die, any more than it ceases to be serious when people laugh" (qtd. in McGuire et al. 73). A narrow focus on merely the somber and serious aspects of the dying process would, by definition, exclude

a whole host of human experiences, including the experience of humor at the end of life.

Almost by definition, the testamentary traditions are somber, but actual last words range from the somber and serious to the humorously light-hearted. There is no single mood or manner that can by globally applied to the affect of a dying individual, or for that matter their attendants. However, what has been firmly established is the physiologic benefit to the cardiovascular system when one experiences laughter associated with humor, or mirthful laughter (Miller and Fry 1857).

Humor which focuses on end-of-life experiences is significant in what it expresses about the relationship of individuals within a culture to humor, but more importantly, for what it explains about the individuals involved in the dying process. The role of humor and its attendant laughter cannot be overlooked in the *Testament of Abraham,* nor can it be overlooked in this study.

The Book of Proverbs narrates, "People who confess and give up their sins will obtain mercy" (Proverbs 28:13). But, what can one make of the fact that Abraham, the great patriarch, does not make a testament? The Old Testament merely accords one passage to the dying of Abraham: "And he died at a ripe old age, having lived a long and satisfying life. He breathed his last and joined his ancestors in death" (Gen. 25:8). While this is the translation given in the New Living Translation of the Bible, one cannot help but laugh to read the translation of the very same passage in the King James Version: "Then Abraham gave up the ghost, and died in a good old age, an old man, and full of years; and was gathered to his people" (Gen. 25:8). In modern American culture, *giving up the ghost* is an amusing phrase that tends to add a certain light heartedness to the dark time of dying. Biblically, Abraham never gave his last testament, and the lack of an actual document created by the patriarch opened the door for the authors of the day to creatively fill the gap.

The Testament of Abraham offers significant insights into the lived experience of the end of life trajectory. The story suggests that the following experiences can be considered normal or perhaps universal at the end of one's natural life:

1. A juxtaposition of subjective and objective experiences of time
2. A need to make amends, or *to put one's house in order*
3. Visions of or conversations with angels or loved one's who have died previously
4. Denial
5. Anger
6. Hope
7. Personality changes
8. Bargaining
9. A curiosity about death
10. Fatigue
11. A need to laugh

In "The Soul and Death," Jung observes, "Dying . . . has its onset long before actual

death. Moreover, this often shows itself in peculiar changes of personality which may precede death by quite a long time" (*CW* 8: 809). Jung does not detail the changes which he has observed in those who are dying; however, The *Testament of Abraham* affords the reader an opportunity to study an archetypal dying process as it unfolds over time. Furthermore, in this work one observes aspects of Abraham's personality which had never been expressed before: to wit, the patriarch's impertinent response to Michael upon learning of the reason for the visit (RecLng 7:12). Anger at the divine was expressed by Abraham as it had been by Enkidu.

Emerging research in the field of neurobiology insists that one recognize the primacy of the neurophysiology of the human body when working to understand the human lived experience of denial and anger. At the beginning of the twentieth century, Freud and Jung both recognized the primacy of the body in one's psychology (Freud: *Interpretation* 426; Jung *CW* 8:798). Over a half century later, Keleman and Campbell argued for the role of the body in emotions and mythmaking (*Myth and the Body* 3); and now in the early twenty-first century, neurobiological researchers such as Daniel Siegel and Allan Schore explore the metabolic changes occurring in the body when various emotional states are experienced.

Scientific advances clearly demonstrate the primacy of body chemistry in the emotional life of human beings. Given the unique physiological state of the dying human body, one must concede the possibility that emotions which appear to be universally experienced at the end of life (e.g. denial and anger) may well be expressions of the underlying physiological changes that are known to occur at the end of one's life.

Chapter 4

A Study of the Neuroscience of Fear and Compassion: The Landscape of the Dying Seen through a Buddhist Lens

Shall I not die like Enkidu also?

Sorrow hath enter'd my heart; I fear death.

- Gilgamesh Tablet IX, col.1, lines 2, 3

And in all countries of the world people are greatly afraid of old age, disease, and death, and there is none where these fears do not arise.

- The Buddha

(recorded in the poem "Nanda the fair" composed by first- century Indian poet Ashvagosha.Trans. by and qtd. in Conze 111)

Whether one speaks of the fear of death as the fear of one's own dying or the fear of witnessing the dying process of another, whether one worries about intractable pain at the end of one's own life or the fear of dying alone, there can be no doubt that the fear of death is present in the human experience and has been present in the landscape of dying for at least 2500 years. In her book entitled *Graceful Exits,* student of the Hindu master Swami Muktananda Sushila Blackman writes:

> When we do think of dying, we are more often concerned with how to avoid the pain and suffering that may accompany our death than we are with really confronting the meaning of death and how to approach it. (7)

Blackman was present in the ashram when Muktananda died. She suggests that by studying the dying processes of the great masters of the Buddhist traditions, one is able to find the teachings that can help an individual lessen the fear of his or her own death. Blackman implores her readers to seek out the wisdom inherent in these great traditions:

> We are in dire need of role models, people to show us how to face leaving this world gracefully and to place death in its proper perspective. For this it is natural to turn to those most experienced in dealing with death (and with life): spiritual masters. (7)

This chapter begins with a discussion of the relevance of Buddhism to twenty-first-century America as well as an exploration of the current dialogues occurring between Tibetan Buddhist practitioners. Participants in these discussions include His Holiness the Fourteenth Dalai Lama and cognitive and behavioral scientists engaged in brain research at prestigious academic institutions in the United States. Following this introductory section, this chapter focuses on three major sections each exploring different Buddhist

teachings as they inform the dying process.

In his essay "Buddhisms and Death," Robert E. Goss, Jesuit priest and Harvard trained Doctor of Theology, joins Dennis Klass, Professor of Religion at Webster University, St Louis, discuss the role of the teacher within the Buddhist tradition:

> In Asian Buddhisms and more recent American variations, there are numerous stories of the good deaths of teachers. The teacher becomes the performer in a death drama, and the disciples become the audience in this final legacy of teaching about impermanence and release. (71)

An English translation of an ancient Buddhist scripture entitled *The Buddhacharita, The Acts of the Buddha,* illustrates the experience of young prince Shakyamuni (the future Lord Buddha) when he is first exposed to old age, illness, and death. The particular translation used here is written by first-century Indian poet, Ashvaghosha, and is described by Buddhist scholar Edward Conze as "the first, and in many ways the finest, full-length biography" of the Lord Buddha (34).

The Buddhacharita gives the reader a great deal of insight into the emotions of this great being when he, a healthy young man, is confronted with the dying process of another. Plumbing the neuroscience of Shakyamuni's emotions during these experiences of dying offers valuable information in understanding the ways in which the workings of one's body and mind are able to influence the workings of the body and mind of another. Particular emphasis is placed on the physiologic aspects of the human body as they influence and are influenced by being in the presence of a dying individual. A brief discussion of the life of Shakyamuni, concluding with a discussion of the dying trajectory of the Buddha, lends further insight into the human experience of death and dying.

There is tremendous diversity in Buddhism as it is practiced in the United States. American-born Buddhists blend with Buddhists from all over the world to create a uniquely American Buddhist tapestry. Professor of Comparative Religion and Indian Studies at Harvard University and Director of The Pluralism Project, Diana Eck, describes this idea in her foreword to *American Buddhism*:

> Whatever the term "American Buddhism" may come to mean, the communities constituting the fabric of Buddhist life in America today are manifold and complex, probably more so than in any other nation on earth. There are old and new immigrant Buddhist communities from all the Buddhist cultures of Asia. Some, like the Japanese, have been here for generations . . . . (x)

"In Japan," explains Temple University professor Lucy Bregman, "Buddhism is truly a religion of death" (147). Bregman notes that Shinto-ism, the indigenous religion of ancient Japan, views death and blood as dirty (147). She continues: "When Buddhism entered Japan, approximately 1500 years ago, it brought with it resources for encountering death" (147). The Japanese Buddhist tradition regarding death might be dismissed as having no relevance to a study of the time of dying in twenty-first-century America until one recognizes the sheer numbers of *Nikkei, "*people of Japanese descent who share a common cultural past" (discovernikkei.org), presently living in this country. A 2005 United States Census Bureau survey found there to be approximately 1,204,205 (+/-20,660) individuals of Japanese descent living in this country (U.S. Census). This

may appear to be a relatively small number when compared to the entirety of the American population (288,378,137) (U.S. Census), yet, over one million people with a single culture heritage merits attention.

The second section of this chapter focuses on the age old Japanese tradition of writing jisei, or Death Poetry. *The Ko-ji-ki, Record of Ancient Matters,* an early Japanese work completed in 712 AD, includes some of the earliest teachings from Japan regarding death and its attendant rituals. Studying death verses written over the last 1500 years highlights the Buddhist belief in what C. G. Jung, in "On 'The Tibetan Book of the Dead'," calls "the supra-temporality of the soul" (*CW* 11: 837). In contrast to widely held Western beliefs, Jung argues that people from *the East* believe the soul or psyche of a person is not bound to one's body (*CW* 11: 837). Traditional jisei are written by people living at the end of life and express the wide-ranging Buddhist belief that the soul does not begin nor end with the birth or death of one's body.

The third section of this chapter describes the building which currently houses The Connecticut Hospice. Through its architecture and its placement in the landscape, this structure gives patients an unspoken and yet exquisitely intimate experience of the impermanence of nature. The concept of impermanence is of major importance in any discussion regarding death as it is understood in the Buddhist tradition. Dzogchen Ponlop Rinpoche, abbot of Dzogchen Monastery in Tibet writes:

> Whether or not we are prepared, we will all meet the Lord of Death. Who is this great Lord and what is his power over us? This legendary figure that inspires so much fear is merely the personification of impermanence . . . . ("Are You Ready?" 24)

Dying individuals at Connecticut Hospice find themselves bathed in the visual impermanence of the natural world while at the same time living in a safely protected and medically advanced space. The architectural design of this hospice building allows a calm acceptance of death to permeate the atmosphere. As per a request by The Connecticut Hospice, descriptions of this hospice building will be limited to what is considered to be public access and public information.

Buddhism and its relevance to twenty-first century America

One might question what Buddhism has to do with the dying process in twenty-first-century America. However, explains Yale University professor Mary Evelyn Tucker, "Buddhism is one of the largest religions in the world" (Lancaster 4). Indeed, a national study conducted in 2002-03 by the director of the Center for the Study of Religion at Princeton University, Robert Wuthnow and his associate Wendy Cadge, professor of sociology at Brandeis University, found "that one American in seven claims to have had a fair amount of contact with Buddhists and that one person in eight believes Buddhist teachings or practices have had an important influence on his or her religion or spirituality" (Wuthnow and Cadge 363). For many individuals living in areas with high diversity in the population, this may not come as a surprise. However, given that immigration laws in this country only opened in earnest to people of Asian descent in 196511 the influx and influence of the Buddhist tradition into American culture in slightly more than four decades has been nothing short of profound.

Eck writes, "Today the percentage of foreign-born Americans is 10.4%, more than

doubling in the thirty years since 1970, when it was 4.7%. . . . Between 1990 and 1999 the Asian population grew 43% nationwide to some 10.8 million" (*New Religious* 2). She continues:

> Our first challenge in America today is simply to open our eyes to these changes, to discover America anew, and to explore the many ways in which the new immigration has changed the religious landscape of our cities and towns, our neighborhoods and schools. (*New Religious* 2)

In present-day America, many practices of Buddhism, such as meditation and yoga, are quite widespread. Temple University Professor of Religion Lucy Bregman writes:

> [I]n North America today many persons practice some form of Buddhist meditation . . . without ever getting to the point of officially taking refuge in anyone or thing, nor do they make any vows. They may belong to Buddhist meditation groups, read Buddhist books, hear visiting Buddhist teachers, but not be "formally" Buddhists at all. (150)

The Buddhist tradition is not only being practiced in houses of worship or other places traditionally recognized as centers of spirituality. Rather, Wuthnow and Cadge argue:

> [D]ata suggests the importance of the wider institutional mechanisms through which Buddhism is communicated in American culture. These are not specifically Buddhist, at least not in the sense of being staffed by Buddhist immigrants or being facilities that are identifiably Buddhist. They are nevertheless carriers of ideas about Buddhism. The New Age movement and the holistic health movement include bookstores, periodicals, seminars, and retreats in which some exposure to Buddhist practices may be present. Churches and synagogues are places where classes in Buddhist meditation may be taught or where people learn about Buddhist traditions. The same may be true of classes at colleges and universities. (377)

Regardless of where one lives in the United States, one need look no farther than the local gym to see the influence of the Asian culture in the American landscape; to wit the popularity of teaching the martial arts to our children or the plethora of Yoga, T'ai chi,12 and meditation courses taught in athletic clubs and other venues. In the twenty-first century, one cannot ignore the explosion of cybersanghas, or Buddhist communities on the internet. The term *cybersangha,* explains Charles Prebish, Associate Professor of Religion at Pennsylvania State University, is a "new and unusual sangha [which] unites Buddhist practitioners and scholars worldwide into one potentially vast community" (Religion Online 135). Sites such as www.Buddhanet.net or www.dailyom.com are but two of the many ways that one can access information regarding local Sanghas or access teachings and textual lessons online.

The Mind and Life Institute: A Blending of Science with Buddhism

In 1987, the first of a now twenty-two-year-long series of "Mind and Life" conferences was held in the private residence of His Holiness the Fourteenth Dalai Lama in Dharamsala, India. These conferences, begun by United States attorney Adam Engle and neurobiologist Francisco Varela, were initiated . . . in response to His Holiness' lifelong interest in the sciences, and a growing awareness of the potential for serious dialogue between Buddhism and Western science (Luisi 201). Robert Livingston, Professor

Emeritus of Neuroscience at the University of California, speaks of his hopes for these dialogues:

> We anticipate that the Mind and Life dialogues will improve and increase communications and strengthen ties in term of mutual understanding of neurosciences, consciousness, brain, mind, and the like, and also add new insights into human nature which we believe can contribute to world peace. (Bstan-?dzin-rgya-mtsho 11)

Mind and Life conferences have been held bi-annually since 1985, creating a forum for scientific dialogue between His Holiness the Fourteenth Dalai Lama, other prominent Buddhist practitioners and scholars, and behavioral and cognitive scientists familiar with Buddhist practice. In 2003, the Tenth Mind and Life Conference was held on the campus of Massachusetts Institute of Technology, signaling by its location at MIT the interest and acceptance of such dialogues by prestigious universities in the United States. This particular conference included His Holiness the Fourteenth Dalai Lama and Buddhist practitioners Matthieu Ricard, R. Alan Wallace, and Thupten Jinpa. These men were in discussion with scientists Jonathan Cohen (Princeton University), Daniel Gilbert (Harvard University), Nancy Kanwisher (Massachusetts Institute of Technology), along with several other professors from equally prominent academic institutions, to discuss "the nature of reality" (Harrington and Zajonc 4). In his introductory remarks, Engle again highlighted the importance of creating a discussion forum between the disciplines of science and Buddhism:

> Buddhism uses the human mind, refined through meditative practice, as its primary instrument of investigation into the nature of reality. While this method of investigation is based on observation, very rigorous logic, and experimentation, scientists have traditionally viewed it as subjective and at odds with the objectivity of the scientific method. (Harrington and Zajonc 4)

As demonstrated, Buddhism has a strong presence in the academic and social structure of twenty-first-century America. Additionally, many Western scientists are now combining their empiric knowledge of the workings of the mind with the observations of the ancient tradition of Buddhism. The time of dying as it is informed by neuroscience research, in conjunction with Buddhist teachings, provides an important window into the experience of death and dying.

In order to understand the pivotal relationship between the fear of death and the origins of Buddhism, one need look no further than the origin stories of the tradition. Twentieth-century religious scholar Huston Smith calls attention to the origin myth of Buddhism as having particular relevance to a study of the time of dying:

> It is legend, this story, but like all legends it embodies an important truth, for the teachings of the Buddha show unmistakably that it was the body's inescapable involvement with disease, decrepitude, and death that made him despair of finding fulfillment on the physical plane. (Smith and Novak 6)

The Story of Shakyamuni Buddha

Over 2500 years ago, a child was born in a small state in India to King Shuddhodana and his primary queen, the Great Maya. The young prince was given the name of Shakya-

muni, meaning “Sage from the tribe of the Shakyas” (Conze 34). Miraculous events surrounded his conception and his birth making it clear to those in the kingdom that this infant was indeed out of the ordinary. As noted earlier, the story comes from a translation of the *Buddhacharita* written by first-century Indian poet Ashvaghosha:

> He did not enter the world in the usual manner, and he appeared like one descended from the sky. And since he had for many aeons been engaged in the practice of meditation, he was now born into full awareness, and not thoughtless or bewildered as other people are. (Ashvaghosha 35)

Soon after the birth of the child, an aged and great seer named Asita came to the palace “thirsting for the true Dharma” (Ashvaghosha 36). Conze explains that many of the Sanskrit words used in these texts were deliberately ambiguous, including the word *dharma.* Conze argues that throughout the Buddhist scriptures the meaning of the word “Dharma” shifts between “properties, teachings, events, [and] true facts” (Conze 14).

The wise Asita is deeply moved by the spiritual meaning of the birth on earth of this child and he gives the following prediction to the king:

> Uninterested in worldly affairs he will give up his kingdom. By strenuous efforts he will win that which is truly real. His gnosis will blaze forth like the sun, and remove the darkness of delusion from this world. The world is carried away in distress on the flooded river of suffering, which the foam of disease oversprays, which has old age for its surge and rushes along with the violent rush of death: across this river he will ferry the world with the mighty boat of gnosis. (Ashvaghosha 36).

Other versions of the story describe predictions by court sages that this infant was to become a *chakravartin,* a *“*wheel turner*”* (Trainor 26). The word *chakravartin* can be understood to be “either a righteous universal king or a great enlightened renunciant” (Trainor 26).

Shakyamuni's father had a strong desire for the prince to follow the path of the monarchy and to that end, he surrounded the boy with all the earthly pleasures that the king believed his son could wish for. Ashvaghosha writes:

> The monarch, however, decided that his son must never see anything that could perturb his mind, and he arranged for him to live in the upper storeys of the palace, without access to the ground. (38)

As the prince grew up, he became increasingly curious about the world outside of his protected home. The young maidens of the palace had spoken of the beauty of the groves outside the palace walls, and Shakyamuni wished to experience them for himself. When the king learned that his son planned to venture out, he ordered all “common folk with any kind of affliction should be kept away from the royal road, because he feared that they might agitate the prince's sensitive mind” (Ashvaghosha 39). With the streets and environs cleaned of any sights deemed undesirable by the king, the prince and his charioteer set out for the groves.

Outside of the palace walls, Shakyamuni and his charioteer found themselves in the midst of a crowd of admirers who had come to see the king's son in all of his finery. But what the prince was to experience was not determined by his father; rather, it was determined by the Gods. Ashvaghosha writes:

> The Gods of the Pure Abode . . . conjured up the illusion of an *old man*, so as to induce the king's son to leave his home. The charioteer explained to him [Shakyamuni] the meaning of old age. (39).

Immediately, the emotions of the young prince were inflamed:

> [He] reacted to this news like a bull when lightening crashes down near him. . . . He sighed deeply, shook his head, fixed his gaze on the old man, surveyed the festive multitude, and deeply perturbed, said to the charioteer: "So that is how old age destroys indiscriminately the memory, beauty, and the strength of all! And yet with such a sight before it the world goes on quite unperturbed. . . . How can I delight to walk about in parks when my heart is full of fear of ageing [sic]?" (39)

The king's son had, for the first time, observed the physical decrepitude of another human being. His response is to recoil in fear with the realization that this fate awaits him as well. In this vision, the prince does not feel a sense of compassion for the man; rather, Shakyamuni is a victim of his own imaginings and forethought. He has imagined himself as an old and decrepit man, and fear is instilled in his heart as he sees his own future. How is one to understand what is occurring here?

Two of the great gifts of the human mind are imagination and foresight, and in the story of the young Shakyamuni, the prince experiences both. Yet, these two gifts combine in such a way that when the prince is confronted with an old man he becomes fearful of his own senescence. Shakyamuni uses both forethought and his power of imagination to imagine himself forward into an aging body and, although this image does not exist outside of his mind, the king's son is frightened by the idea of his own decrepitude.

Fear of one's future, the fear experienced by Prince Shakyamuni, is predicated on his innately human ability to imagine that someday he too will become old and weak. Daniel Siegel and his colleagues have demonstrated that one of the myriad functions performed by the prefrontal cortex of the human brain (fig. 4.1) is to imagine the future (*Mindsight* 232).

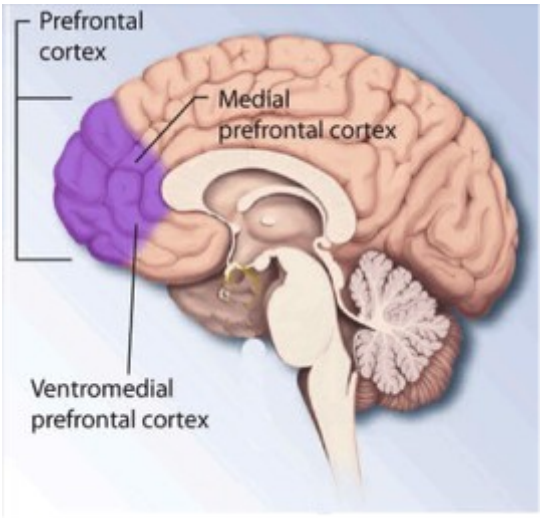

Fig. 4.1 The prefrontal cortex of the human brain

(image adapted from "Post Traumatic Stress Disorder Research Fact Sheet." National

Institutes of Health)

The neurophysiology of this region, argues Siegel, allows humans "to create representations that move the imagination into the future" (*Mindsight* 232). Long before neuroscience was able to name with specificity the region of the brain involved in imagination, the great fourth-century religious philosopher Augustine of Hippo speculated that the workings of the body were in some way engaged in the creation of the human imagination. In the book *Augustine Through the Ages,* Augustinian scholar Todd Breyfogle paraphrases Augustine: "Imagination," writes Breyfogle, "is that activity of the soul or mind which mediates between sense perception and intellectual knowledge through the reproduction and production of images" (442). Augustine intuited the relationship expressed by the mind/body dyad, a relationship that neuroscience has only recently come to demonstrate.

It is clear from Shakyamuni's story that it is the workings of his own mind that have created his feelings of fear; to wit, his own healthy and youthful twenty-nine-year old body. An exploration of the concept of the human mind requires a working knowledge of several basic terms. Terms such as the *human mind* itself must be defined. Simple as the concept of the human mind may seem, mind/brain researcher Daniel Siegel argues that there is actually no single agreed upon working definition of *the mind.* ("Mindsight" 5:20). He presents the following working definition and claims that many researchers can agree on this: "The mind is a process that regulates the flow of energy and information [in and out of the brain]" ("Mindsight" 5:20). Siegel provides eloquent arguments for the role of the mind in the processing and decision making that occurs in one's mind when confronted with informational input. He describes the mind as follows:

> The human mind happens in a couple of ways. It happens in the body of course, so it is embodied. It happens through our extended nervous system distributed through the whole body. ("Mindsight" 5:30-6:00)

The extended nervous system, the physiology of the body and the brain, work synergistically to create what is commonly understood to be *the human mind.* Figure 4.2 provides a graphic representation of the extent to which the nervous system and its parts are distributed through and integral to the human body (Note that the abbreviation CNS as it is used in this context means Central Nervous System.).

Professor of biology at Washington University Ursula Goodenough calls attention to the inherently complicated nature of the brain itself, the organ within each person that

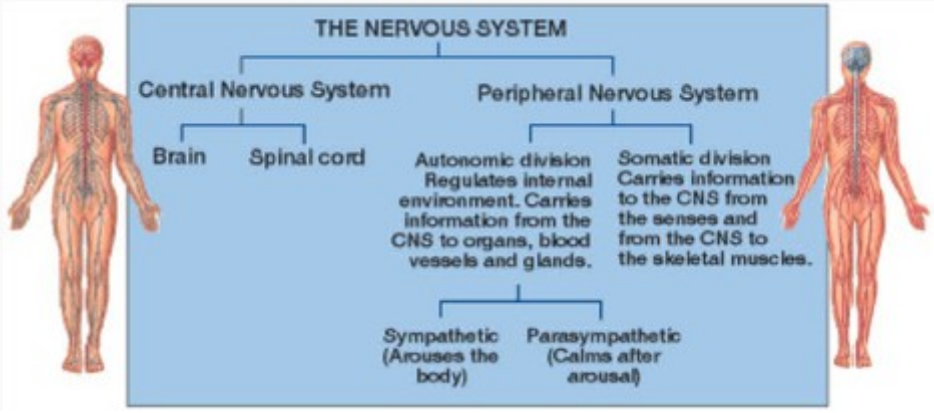

Fig. 4.2 Schematic diagram of the divisions of the nervous system

(Morris, Charles G.; Maisto, Albert A. *Psychology*: *An Introduction, 12th Ed.,* Reprinted by permission of Pearson Education, Inc., Upper Saddle River, NJ)

houses the meaning-making aspect of the mind. "In our brains," writes Goodenough,

> there are about a hundred billion neurons, and they interact with one another to integrate signals and to produce emergent properties that we call our brain-based awareness. (Bstan-?dzin-rgya-mtsho 127)

One way to conceptualize the relationship of brain based awareness to the extended nature of one's nervous system would be to consider the following: Imagine that you put your finger on a hot stove. In a moment, the nerves in your finger are stimulated and a neuronal message is sent to your brain, making you consciously aware of the painful experience of your burning finger. Almost instantaneously, most people with intact nervous systems will remove their finger from the hot burner so as to stop the painful stimuli. In this example, the impulses travel along the nerves to the brain, the signals are decoded by the human brain, and the finger is removed from the offending stimulus.

This example of a pain response illustrates one of the many ways in which healthy human beings live the experience of an extended nervous system. However, this example presumes a fully functioning and intact nervous system. Consider now the following scenario: A diabetic patient who has lost feeling sensation in his or her fingers due to a complication of diabetes. One of the many complications which can occur in diabetes, for example, is the loss of sensation in the extremities such that this person may put his or her hand on the hot stove, suffer a severe burn and yet, not perceive any pain at all. Another example might be that person who has suffered a traumatic brain injury affecting the region of the brain which receives the pain signals. This person might also experience an altered perception of the pain of burning and may or may not respond by removing the finger from the offending source. Clearly, the mind relies on accurate input as well as an intact sensory system in the body to determine a proper course of action, in this case, to remove one's finger from the stove.

The neuroscience of fear

In the story of the young prince, Shakyamuni uses his power of imagination to foresee his own future and he becomes fearful of his own decrepitude. "Fear," explains Joseph LeDoux at the Center for Neural Science at New York University, "is a normal reaction to threatening situations and is a common occurrence in everyday life" ("Fear" 1229). Evolutionary biologists argue that a healthy fear of death is a necessary requirement for species survival (Stern 8). Modern research has demonstrated that neurons in the limbic region of the animal brain, and more specifically neurons in the specialized tissue called the amygdala, become activated when one experiences fear. Figure 4.3 illustrates the limbic system in the human brain and the placement of the amygdala within that system.

Long before science was able to name the areas of the brain involved in emotion, William James asserted that emotions, particularly fear, anger, and sorrow, are rooted in and emerge from the "body itself" (188). In his paper entitled "What is an emotion?" published in 1884, James hypothesized that "*bodily changes follow directly the*

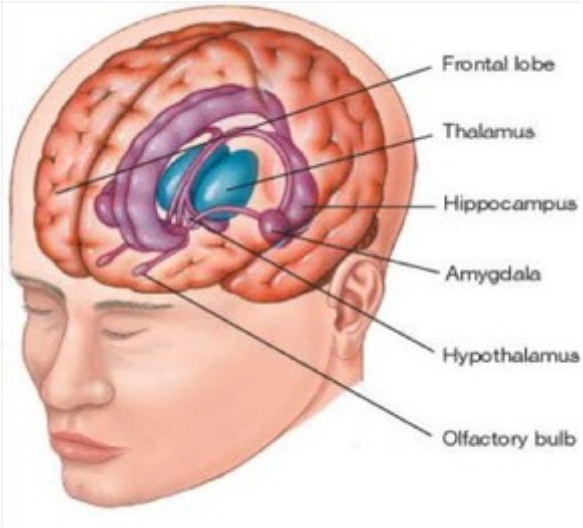

Fig. 4.3 The limbic system of the human brain

(Morris, Charles G.; Maisto, Albert A. *Psychology*: *An Introduction, 12th Ed.,* Reprinted by permission of Pearson Education, Inc., Upper Saddle River, NJ)

PERCEPTION *of the exciting fact, and that our feeling of the same changes as they occur* IS *the emotion*" (189-90). He posited the following question to illustrate his point: If a person were to be surprised by a bear in the wild, would that person first perceive the threat and then run; or would the human body naturally react first by taking off in a run only to have the feeling of fear emerge secondarily to the bodily response (190). James reasoned that the physical response of the body would come first and be followed by the emotion of fear. In his bear analogy, James was describing what is referred to in common parlance as a "fight or flight" response to a fearful situation.

During the fight or flight response, one is often aware of bodily changes such as the feeling of becoming tense or feeling one's heart beating faster. However, LeDoux argues, "much of what the brain does during an emotion occurs outside of conscious awareness" (*Emotional* 267). During activation of the fight or flight mechanism, one is not likely to be consciously aware of one's own pupillary constriction or the shunting of one's own blood flow from the gut to the vital organs and the brain. Indeed, during the fight or flight response the hypothalamus, an organ situated deep within the limbic region of the brain (as demonstrated in Figure 4.3), is stimulated along with the excitation of the sympathetic nervous system. (See Figure 4.2 for placement and function of the sympathetic nervous system). While the body is actively engaged in the emotional response of the fight or flight mechanism, much of what occurs in the body is outside of the conscious awareness of the mind.

The emotions experienced by the king's son when he is exposed to an old man included fear as well as the urge to run away, a subtle but discernable fight or flight response. Director of the Brain and Creativity Institute and professor of neuroscience at the University of Southern California Dr. Antonio Damasio argues:

> [T]he term emotion should be rightfully used to designate a collection of responses

> triggered from parts of the brain to the body, and from parts of the brain to other parts of the brain, using both neural and humoral routes. [13] (84)

Aware or unaware, research demonstrates that one's physiologic state has a direct effect on one's emotions and conversely, one's emotions have a direct effect on one's physiology.

From the first encounter with the aging process, the story of Shakyamuni teaches that imagining oneself forward and feeling the fear inherent in such imaginings is a very natural and human response. Indeed, the story demonstrates that even the great Lord Buddha lived with the fear of decrepitude. However, what sets this great man apart from all the rest is the way in which he chooses to engage his felt emotion. Smith writes:

> While the rest of the world was wrapped in the womb of sleep, dreaming a dream known as the waking state of human life, one of their number roused himself. Buddhism begins with a man who shook off the doze, the dream-like vagaries of ordinary awareness. It begins with a man who woke up. (*World's Religions* 82)

Shakyamuni's vision of the old man was the first of four visions which ultimately motivated the prince to leave his home and begin seeking a way to alleviate the suffering inherent in the human condition.

On his second foray out of the palace, the prince encountered a diseased man. Ashvaghosha writes:

> [T]he same gods created a *man with a diseased body*. When this fact was explained to him, the son of Shuddhodana was dismayed, trembled like the reflection of the moon on rippling water, and in his compassion he uttered these words in a low voice: "This then is the calamity of disease, which afflicts people! The world sees it, and yet does not lose its confident ways. Greatly lacking in insight it remains gay under the constant threat of disease." (40)

Upon returning to the palace, Shakyamuni says, "Since I have learnt of the danger of illness, my heart is repelled by pleasures and seems to shrink into itself" (Ashvaghosha 40). The response of this great young man to his second vision goes beyond worry for himself. The experience of illness in another being again creates a sense of fear in his heart, but this time his compassion has been stirred.

Compassion, writes Tibetan Buddhist His Holiness the fourteenth Dalai Lama, "is the wish for another being to be free from suffering" (Gyatso, *Compassionate Life* 17). Yet, in order to alleviate suffering in another, one must first understand the root cause of the suffering. Daniel Drubach, a researcher in the Departments of Neurology and Psychiatry at the Mayo Clinic and College of Medicine, explains that the scientific *Theory of Mind* describes exactly this phenomenon:

> Theory of Mind (ToM) refers to a cognitive process which allows an individual to "place him/herself" in the others person's "mind," so as to comprehend the latter's cognitive and emotional status . . . . (354)

Without this ability to place oneself in another's shoes, one would not be able to imagine oneself into the experience of another, nor would one have the ability to experience compassion for another being.

In an article published in 2007 by brain researcher Miimaaria V. Saarela et al. in the journal *Cerebral Cortex*, the authors argue:

> [U]nderstanding another person's experience draws on "mirroring systems," brain circuitries shared by the subject's own actions/feelings and by similar states observed in others. (230)

These mirroring systems, termed *mirror neurons*, have been shown to activate the brain in one person who is merely observing painful stimuli given to another. Saarela et al. claim:

> In a mirroring system, motor or sensory, corresponding brain areas are activated [in the observer] when the subjects themselves act, feel, or perceive and when they observe another individual in similar situations and infer their feelings or intentions from their non-verbal behavior. (230)

Neuroscience research has demonstrated that when one has the experience of seeing another person in a state of suffering, as Shakyamuni has done, "not only the presence of pain but also the intensity of the observed pain is encoded in the observer's brain - as it occurs during the observer's own pain experience" (Saarela et al. 230). This insight is nothing less than extraordinary. From this finding, one can infer that Shakyamuni has not only objectively observed the pain of the other*,* but he has actually felt the pain of the other. Armed with this knowledge, one can now understand why the task of attending to one who is dying can be so challenging. If the attendant is in-feeling with the one who is dying, then one must question whether the attendant himself or herself is experiencing the feeling of dying as well.

As noted in the previous chapter, the Abrahamic faiths each highlight the importance of the bedside sitter, and indeed elevate the act of the attending to the level of the sacred. Studying the embodied response of Shakyamuni as he is exposed to old age and disease teaches one of the natural human responses to these experiences. The teaching aspect of this story encourages the student to work to comprehend more fully how it is that actually attending to one who is dying, or merely considering the idea of being with a dying person, can engender fear in one's own heart.

With a basic understanding of how mirror neurons work in the human brain, one can hypothesize that if the attendant is fearful, the neural pathways in the brain of the dying individual will mirror that fear, and thus the dying time will be fraught with fear emerging from and blending with all of those in attendance. This finding speaks to the importance of a calm atmosphere and of creating a tone that accepts the natural finitude of the human body when attending to the dying. The value of calm acceptance of the end of life will be discussed in the two sections following this one.

After having experienced the vision of the diseased man and sharing in the suffering of the man, Shakyamuni is deeply changed. Up to now, he has been satisfied by his life inside the palace, but he is content no longer and he journeys out for a third time. Ashvaghosha writes:

> On the third excursion the same gods displayed a *corpse* . . . . The charioteer again explained the meaning of this sight to the prince. Courageous though he was, the king's son, on hearing of death, was suddenly filled with dismay. Leaning his

> shoulder against the top of the chariot rail, he spoke these words in a forceful voice: "This is the end which has been fixed for all, and yet the world forgets its fears and takes no heed! The hearts of men are surely hardened to fears, for they feel quite at ease even while traveling along the road to the next life. Turn back the chariot! This is no time or place for pleasure excursions. How could an intelligent person pay no heed at a time of disaster, when he knows of his impending destruction?" (Ashvaghosha 40)

Shakyamuni had witnessed the effects of aging, disease, and ultimately of death. In response, he withdrew deep into himself to consider all that he had seen. When challenged by the king's counselor, the young prince explained:

> It is not that I despise the objects of sense, and I know full well that they make up what we call the "world". But, when I consider the impermanence of everything in this world, then I can find no delight in it. Yes, if this triad of old age, illness, and death did not exist, then all this loveliness would surely give me great pleasure. . . . I become frightened and greatly alarmed when I reflect on the dangers of old age, death, and disease. I find neither peace nor contentment, and enjoyment is quite out of the question. (Ashvaghosha 41)

As the days passed, the young prince was wholly absorbed in the grief that he felt from these three experiences. He again rode out from the palace into the fields hoping to quiet the grief in his heart:

> [H]e sat down, reflected on the origination and passing away of all that lives, and then he worked on his mind in such a way that, with this theme as a basis, it became stable and concentrated. (Ashvaghosha 42)

Shakyamuni sat meditating on the impermanence of all living beings; "he reflected on the origination and passing away of all that lives" (Ashvaghosha 42) and felt a sense of calm come over him that he had not felt during these difficult days. Indeed, his meditation is described by the poet as one that is "accompanied by the highest rapture and joy" (Ashvaghosha 42). Yet, one wonders how it is possible that a man experiencing such pain in his heart could simultaneously experience rapture and joy.

In an article entitled "The Limbic System and The Soul," director of the Brain Research Laboratory Rhawn Joseph describes the role of the limbic system (fig. 4.2) in the production of the feeling of fear as well as in the religious feelings of rapture (129). Joseph explains:

> [P]rayer, and meditation are common methods of attaining mystical states of religious and spiritual awareness and have been employed worldwide, across time and cultures. These conditions also activate the limbic system as well as the overlying temporal lobe, thereby giving rise to hallucinations and the secretion of opiate-like enkephalins. (129)

One action of enkephalins in the brain is the production of a euphoric state similar to the mental state induced when one ingests opiates (e.g. heroin or opium). During meditational practices, enkephalins bathe the limbic system of the practitioner in opiate-like substances that suppress the transmission of pain signals from the nervous system to the brain. Although the source of the pain may not have been removed, these findings

demonstrate what Buddhist practitioners have long known - meditative or prayerful practices can alter and ease one's perception of pain.

There can be no doubt that the physical and emotional pain that may accompany the dying process can be great. Indeed, in Shakyamuni's story the pain felt by the prince was severe enough to impel him to leave the comforts of his home to seek relief for himself and others:

> "Pitiful, indeed, that these people who themselves are helpless and doomed to undergo illness, old age, and destruction, should, in the ignorant blindness of their self-intoxication, show so little respect for others who are likewise victim of old age, disease, and death! But now that I have discerned this supreme Dharma, it would be unworthy and unbecoming if I, who am so constituted, should show no respect for others whose constitution is essentially the same as mine." When he thus gained insight into the fact that the blemishes of disease, old age, and death vitiate the very core of this world, he lost at the same moment all self-intoxication . . . . (42-43)

As Shakyamuni continued to sit in meditation, the Gods of the High Abode created a fourth and final vision: The prince "saw a man glide towards him . . . in the guise of a *religious mendicant*" (Ashvaghosha 42). The prince inquired as to the identity of this man and the mendicant replied, "I am a recluse, who terrified by birth and death, have adopted a homeless life to attain salvation" (Ashvaghosha 43). Through this image, the gods had exposed the king's son to the fear of death as experienced by others. The terror expressed by the recluse and the fear that arose in Shakyamuni when he considered his own death is an emotion still experienced today, almost 2500 years later, when one finds oneself in the presence of death.

With each new vision the Gods continued to expose the king's son to the human condition of aging, disease, and death. Shakyamuni's response was a very human one: he became fearful, and at the same time, he felt compassion. On his third foray out of the palace, the prince sat in deep meditation and was finally able to find peace in his heart. He came to understand that the human mind itself is responsible for a great deal of human suffering.

Although the source of the pain in the prince's heart had not changed, his meditative practice gave him the ability to alter his perception of that pain. Siegel explains the workings of the brain as a means of teaching how the practice of meditation can alter one's neuronal firing patterns:

> It is easy to get overwhelmed when thinking about the brain. With more than one hundred billion interconnected neurons stuffed into a small, skull-enclosed space the brain is both dense and intricate. And . . . each of your neurons has ten thousand connections, or synapses, linking it to other neurons. (*Mindsight* 38)

The number of firing patterns possible between all of these neurons has been calculated to be a mind boggling "ten to the millionth power-or ten times ten one million times" (*Mindsight* 38). Siegel argues, "The brain's complexity gives us virtually infinite choices for how our mind will use those firing patterns to create itself" (*Mindsight* 38). If the human mind has infinite capability to create itself, one might wonder about the ways in which one could harness that ability to ease one's natural fear of death.

Neuroscientists have demonstrated that neural firing patterns in one's brain are not static

over the course of one's life span. Indeed, the firing patterns in each person's brain change and alter constantly as one is exposed to new situations in life. "You can't teach an old dog new tricks" is a cliché that has repeatedly been shown to be inaccurate. However, this belief is so deeply engrained in twenty-first-century American culture that the English language has had, up to now, no word to describe one's ability to learn new skills over the course of a lifetime. Siegel and his colleagues fill the void by creating a neologism to describe the innate human ability to retrain one's own mind. Siegel explains: *"*[Neuroplasticity is the] term used to describe this capacity for creating new neural connections and growing new neurons in response to experience" (*Mindsight* 5).

The innate human ability to alter one's own perceptions through meditative practice is nothing short of extraordinary. Siegel explains:

> [T]he power to direct our attention has within it the power to shape our brain's firing patterns, as well as the power to shape the architecture of the brain itself. (*Mindsight* 39)

Another way to understand Siegel's meaning would be to understand that once one knows something, one cannot *not* know it. This is demonstrated in the story of Shakyamuni: Once Shakyamuni knew of the depth of human suffering, he could no longer close off his mind to its presence in the world. In his book *Old Path, White Clouds,* Vietnamese Buddhist monk Thich Nhat Hanh describes the awakening of Shakyamuni:

> He realized that body and mind formed one reality which could not be separated. The peace and comfort of the body were directly related to the peace and comfort of the mind. (104)

Soon after his experiences outside the palace, the prince chose to renounce his high-born status. Leaving the palace and trading his royal garb for a monks robe, the king's son felt a certain sense of ease and again sat in meditation.

Leaving the protected world of his father at the age of twenty-nine, the prince spent the next 6 years of his life wandering as an ascetic. During that time, he studied long and hard with the great religious teachers of the Ganges Valley, and yet none of the traditional religions or their methods satisfied him. Buddhist monk and scholar, Dr. Walpola Sri Rahula writes:

> So, he abandoned all traditional religions and their methods and went his own way. It was thus one evening, seated under a tree (since then known as the Bodhi- or Bo-tree, "the Tree of Wisdom"), on the bank of the river Neranjara at Buddha-Gaya . . . at the age of thirty-five, Gotama [Shakyamuni] attained enlightenment, after which he was known as the Buddha, "The Enlightened One." ("Siddhartha" 23-24)

Soon after enlightenment, the Buddha began to preach his doctrine, and with his first sermon, elucidates University of Paris professor Alfred Foucher, "he sets the Wheel in motion" (127). The doctrine he preached, explains Tenzin Gyatso, His Holiness the fourteenth Dalai Lama, is known today as the Four Noble Truths. The Dalai Lama writes:

> The core teachings of the Buddha are grounded in the four noble truths. These are the foundation of the Buddhist teaching. The four noble truths are the truth of suffering, its origin, the possibility of cessation of suffering, and the path leading to that cessation. (*The Compassionate Life* 57)

Professor of Indo-Tibetan Buddhist Studies at Columbia University Robert A. F. Thurman suggests:

> These teachings became the basis of a peaceful revolution that changed his society, a revolution in which the aims of pleasure, wealth, power, duty, and piety toward the divine were superseded by that of total freedom from suffering - the supreme happiness that every being wants. (119)

The Buddha taught his doctrine for the next forty-six years. Perceiving the end of his life was approaching, the Buddha, now eighty years old, chose to make one more pilgrimage. Foucher describes that "[t]he Buddha, in spite of his advanced age, decided to pursue once more the same itinerary he had traveled when he first left home" (219). Along the way, however, the Great One "was stricken with his first attack of the dysentary that finally killed him" (220). The Buddhist scripture entitled *The Mah?paranibb?na Sutta,* elaborates:

Now when the Blessed One had thus entered upon the rainy season, there fell upon him a dire sickness, and sharp pains came upon him, even unto death. But the Blessed One, mindful and self-possessed, bore them without complaint. (Foucher 225)

"The Buddha," writes Walpola,

> was described by his contemporaries as "ever-smiling." In the Buddhist painting and sculpture, the Buddha is always represented with a countenance happy, serene, contented and compassionate. Never a trace of suffering or agony or pain is to be seen. (*What the Buddha Taught* 26)

Yet, while the texts state that the body of the Enlightened One was wracked with severe pain, his countenance is described as serene. How does one make sense of the apparent disparity in the bodily pain being experienced in the Buddha and his supremely calm countenance?

Ordained Buddhist monk and religious scholar B. Alan Wallace explains: "Buddhism identifies two types of suffering: physical and mental. The two are not identical . . . " (Bstan-?dzin-rgya-mtsho 154). Participants in the "Mind and Life" conference held in 1989 discussed at length the issue of the mind/body relationship. Ultimately, the Buddhists "maintained that physical and mental phenomenon experientially seem to be different" (Bstan-?dzin-rgya-mtsho 154). Not all of the scientists present were in agreement and several argued for the two phenomena to be intimately interwoven.

Interwoven or not, Harvard University professor J. Allan Hobson argued, "The mind/body system is clearly open to interventions of two distinctive kinds. One is biological intervention, and the other is a conceptual intervention" (Bstan-?dzin-rgya-mtsho 155). While the interventions belie a certain dualism regarding the mind and body, this chapter clearly lays out the argument that these two are deeply interconnected. And more importantly, through meditative practices one is able to alter much of one's own neural processes so as to alter one's experience of fear and pain, whether the pain is physical or emotional.

The Buddhist Scripture entitled *Mahaparinibbana Sutta* states more than once that the Buddha is aware that he is nearing the end of his life (Nhat Hanh 598) and yet the reader is given no indication that he is experiencing fear. Calm acceptance marks the dying

process of this great man. The Buddha gracefully accepts the finitude of the human body and, using his own process as an example, he teaches his disciples to approach the dying process as nothing to be feared; rather, it is the greatest transformation in one's life.

In the foreword to the book *Being With Dying* written by Roshi Joan Halifax, physician Ira Byock writes:

> While the dominant orientation of the Western culture toward death is avoidance, for over 2,500 years Buddhists have studied the question of how one can best live in the presence of death. (xi)

Zen priest and anthropologist Roshi Joan Halifax has herself worked with dying individuals in the United States for over forty years. She gives voice to what one observes in the dying trajectory of this Great Being:

> Old age, sickness, and death do not have to be equated with suffering; we can live and practice in such a way that dying is a natural rite of passage, a completion of our life, and even the ultimate in liberation. (Halifax and Byock xv)

As he lay dying, the Buddha continued to teach. He spoke these words to Ananda and repeated them to his followers:

> Don't be so sad, Ananda. The Tathagata [One who has found the truth] has often reminded you that all dharmas are impermanent. With birth there is death; with arising, there is dissolving; with coming together, there is separation. (Nhat Hanh 558)

With that, "[t]he Buddha closed his eyes. He had spoken his last words. The earth shook. Sal blossoms fell like rain. Everyone felt their minds and bodies tremble. They knew the Buddha had passed into Nirvana" (Nhat Hanh 560).

Discussion

The Buddha had a great sense of calm at the time of his own death. Is the reader to understand that a lifetime of meditative practice played a role in this serenity? And if so, must one meditate for decades in order to achieve such calm, or is it possible to alter one's own dying process in a more immediate and less time intensive fashion? In order to explore these questions, I turn to Harvard University researcher Sara Lazar:

> [R]esearch indicates that long-term meditation practice is associated with altered resting electroencephalogram patterns, suggestive of long lasting changes in brain activity. We hypothesized that meditation practice might also be associated with changes in the brain's physical structure." ("Meditation")

Using a type of brain scanning technique called magnetic resonance imaging (MRI), Lazar and her colleagues demonstrated increased thickness in the prefrontal cortex (see fig. 4.1) and the right anterior insula (a region of the brain that is contiguous with the limbic region) in those who were long term meditators ("Meditation"). The work of Lazar and others continues to explore the changes in the brains of these individuals: However, the question remains as to the value of short-term meditative techniques that might be taught and utilized at the end of life.

According to the National Institutes of Health, meditation as a health intervention is

currently considered to be a form of Complementary and Alternative Medicine (CAM) (Barnes et al. 54). A study conducted in 2002 by the Centers for Disease Control and Prevention's National Center for Health Statistics found that over the course of the year prior to the study, 7.6% of adults in the United States had engaged in meditation specifically for health reasons. At the same time, there appears to be a burgeoning interest by the National Institutes of Health (NIH) in research on the emotional and physical benefits of meditation. To wit, The National Institutes of Health is currently funding 135 projects designed to further delineate the biologic bases and health benefits of meditation. A study currently being conducted by Duke University researchers in conjunction with the National Institute of Nursing Research is described as follows:

> This study will demonstrate whether an end-of-life preparation and completion intervention reduces anxiety, depression, pain and other symptoms and improves functional status, spiritual well-being, and quality of life. If effective, the intervention offers a brief, inexpensive, and transportable non-physician treatment method for improving the experience of individuals in the latter stages of life-limiting illness. (Steinhauser and Tulsky)

This study has only just begun recruiting study volunteers (Feb 2010) and principle investigators estimate completing phase one of the project in July, 2013 (Steinhauser and Tulsky).

Another example of the ongoing research into the neurochemisty of meditational practices can be found at the University of Wisconsin. At UW, The Laboratory for Affective Neuroscience “engages in a broad program of research on the brain mechanisms underlying emotion and emotion regulation in normal individuals throughout the life course” (“Lab for Affective Neuroscience”). Research in this lab is working to understand why different people respond in different ways to emotional stressors:

> We also study relations between the central circuitry of emotion and peripheral biology to probe the mechanisms of mind-brain-body interaction. A fundamental part of most of our research is a focus on individual differences in affective style - how and why individuals differ dramatically in how they respond to emotional challenges. (“Lab for Affective Neuroscience”)

Thus far, this chapter has focused on the dying process of a single individual, The Buddha. But one must question whether an ordinary human being, one not destined for such universal greatness, could also reach a state of calm acceptance at the end of life. Researchers at the University of Wisconsin are seeking to illuminate exactly that aspect of the individual experience. In particular, the Laboratory for Affective Neuroscience considers:

> [W]hy are some individuals particularly vulnerable in response to negative life events, while others appear to be relatively resilient? How can we promote enhanced resilience? As a part of the latter work, we study interventions designed to cultivate more positive affective styles. One such intervention that we have extensively studied over the past decade is meditation. (“Lab for Affective Neuroscience”)

Harvard University, Duke University, and the University of Wisconsin are but a few of

the many research centers around the world involved in this exciting new field in which meditation and the brain/mind/body connection are being studied.

Anecdotal evidence from clinicians working with dying individuals indicates that meditational practices undertaken by the dying individual or the attendant appear to have a calming influence on the dying individual (Kapleau; Halifax and Block; Kearney). It would be premature to argue for the exact neurobiologic alterations that might result from short-term meditational practices begun at the end of life. However, there is consensus between Buddhist practitioners and neuroscientists that meditation does in some way alter the functioning of one's brain. The questions include: "How?" Further, how can one harness one's own neuroplasticity to ease one's own dying trajectory?

The Buddha taught that each person has within the ability to attain enlightenment in this lifetime. Buddhists teach of the Buddha-nature in all. One can hope that finding the Buddha-nature within will help each person to live the end of one's individual life as the Buddha did: with calm acceptance and free of fear.

Jisei: A depth psychological exploration of the time of dying as expressed in the death poetry of Japan

Empty-handed I entered the world

Barefoot I leave it.

My coming, my going -

Two simple happenings

That got entangled.

Jisei of Kozan Ichigyo, 14th c. Zen monk.

(Blackman 35)

Bright, bright, clean, clear, naked, and splendid.

The great earth, mountains, and rivers - the uncovered womb.

There are flowers and the moon - who is the master!

Spring, Autumn, Winter, and Summer compete with new garb.

Jisei of Yasutani Roshi, 20th c. Zen master

(Blackman 134)

These poems emerge from a centuries-old Japanese tradition of writing *jise*i, or Death Poetry, a poetic verse written or spoken by a man or woman in the moments prior to his or her own death. The two examples above were written by Zen practitioners, the tradition of writing death verses exists throughout Japanese culture and is not limited to a

particular religious group or a particular segment of the population.

As illustrated above, jisei often express the cyclic nature of the natural world, the impermanence of all life, and a cultural belief in reincarnation. These themes could be considered Buddhist in nature. In "Psychological Commentary on 'The Tibetan Book of the Great Liberation,'" Carl Jung explains:

> The religious point of view always expresses and formulates the essential psychological attitude and its specific prejudices, even in the case of people who have forgotten, or who have never heard of, their own religion. (*CW* 11: 771)

The repetition of themes in the time of dying can be considered to be expressions of "essential psychological attitudes," expressions of the psyche of an Eastern individual in the time of dying (*CW* 11: 771). Jung's statement supports the notion that culturally recurring themes reflect more widespread cultural beliefs, inclusive of but not limited to practitioners of Buddhism. His Holiness the Fourteenth Dalai Lama writes, *"[A] fact that is obvious is that gross levels of 'mind' or 'consciousness' are intimately linked with physiological states of the body, and are in fact dependent on them*" (qtd. in S. Rinpoche 90). In the Introduction to his essay entitled "Psychology and Literature," Jung writes: "The phenomenology of the psyche is so colourful [sic], so variegated in form and meaning, that we cannot possibly reflect all its riches in one mirror" (99). Through a study of jisei one is able to use the religious and cultural mirror of Japan to explore the way in which what Jung has called 'the psyche of the Eastern mind' (*CW* 11: 771) engages with physiological processes of the dying body.

In his book, *Ritual Poetry and the Politics of Death in Early Japan*, Professor and Chair of the Department of History at the University of Missouri Gary Ebersole writes: "Death is always a central element of a culture's understanding of the world and humankind's place in it" (4). Demonstrating the veracity of Ebersole's hypothesis, one of the earliest written documents to emerge from Japan is the *Ko-ji-ki, Record of Ancient Matters*. Completed in 712 AD, this work was commissioned during the reign of Emperor Temmu in the 8th c. AD and was intended to correct recorded history. Japanologist Ernest Satow claims that the purpose of the work was to "take steps to preserve the true traditions from oblivion" (Satow, qtd. in O. iv). The first mythological death to occur in Japan is described in this work, and it is the death of the creator goddess Izanami.

The story is that of brother and sister deities: Izanagi, the Male-Who-Invites, and Izanami, the Female-Who-Invites. Upon their first descent from heaven, they decide to create children, and they beget all of the islands of Japan. After this, Izanami births the pantheon of gods and goddesses of the ancient Japanese cultures. However, the birth of Kagu-tsu-chi, the deity of fire, burns her genitals badly and causes her to become fatally ill. As she lies dying, she continues to birth many other gods and goddesses. From the tears of Izanagi, her mourning consort, yet another goddess, Crying-Weeping-Female, is born. In the myth, Crying-Weeping-Female comes to reside on the heavenly Mt. Kagu, a mountain in Japan held to be sacred with a divine counterpart in heaven (Chamberlain 36).

Writing in *Folk Religion in Japan*, Professor of the History of Religions at the University of Tokyo Ichiro Hori describes that it is common for mountains in Japan to have shrines at their peak. He explains, "Japan has a complicated mountain worship which has

developed along diverse lines and become widespread." *The Kodansha Encyclopedia of Japan* explains:

> *Sangaku shinko*, "Mountain Beliefs," began as a form of nature worship centered upon mountains, volcanoes, or mountain ranges. [Gradually] during the Heian period (794-1185) the Buddhist monks Saicho and Kukai advocated a religious life in the mountains. At the same time, a form of religion called Shugendo developed, the goal of which was to develop supernatural powers through mountain asceticism. In modern times, the worship of mountains has continued to be practiced a long with Shugendo in certain shrines and temples on sacred mountains. ("Worship")

The first recorded death verse in Japanese history is recorded in the *Ko-ji-k*i and is the *jise*i of the mythological hero Yamato Takeru-no-Mikoto. PrinceYamato Takeru-no-Mikoto lived a lifetime filled with adventure. However, upon realizing that his own death is imminent, he sings his jisei:

> The saber-sword
>
> which I placed
>
> at the maidens [sic.] bed-side,
>
> alas!
>
> that sword! (O. 266-67)

The *Ko-ji-k*i describes that after singing Yamato laid back and died. Emeritus Professor of Japanese and Philology at the Imperial University of Tokyo Basil Chamberlain explains that the sword Yamato refers to is one that he has left with his mistress, but had he had it with him would have protected him from the "evil influences of the god of Mount Ibuki" (267.15). Although Yamato is mythic, he is not divine, and thus is unable to escape the fatal illness brought upon him by the god of Mt. Ibuki. The death of Prince Yamato, as well as the creation myth of Izanami/Izanagi, intimately link mountains with gods. Hori explains: "Mountains have been the object of worship among many peoples. Their height, their vastness, and the strangeness of their terrain often inspire in the human mind an attitude of reverence and adoration" (143).

Each of these two mythological deaths highlights the divine nature of mountains, but they also demonstrate the cyclic nature of life. The Izanagi/Izanami myth gives image to the generativity of different aspects of the dying process. As Izanagi mourns, his tears result in the birth of the goddess Crying-Weeping-Female. As Izanami lies dying, her vomitus gives birth to many deities. Sogyal Rinpoche explains:

> During the process of dying, with its outer and inner dissolution, is as *a gradual development and dawning of ever more subtle levels of consciousness.* Each one emerges upon the successive dissolution of the constituents of the body and mind, as the process moves gradually toward the revelation of the very subtlest consciousness of all: the Ground Luminosity or Clear Light. (256)

As Izanami's divine yet anthropomorphized body dissolves, her deepest essence is passed on to the next generation in the form of her divine children. In other words, as her own body disintegrates, her teachings and her very soul continue in her children.

Upon the death of Prince Yamato, the soul or spirit of this mythological hero turns into a white dotterel, a bird similar to a swan or a heron, which soars up to Heaven (O. 268). Although this image does not display the generativity of death, it does speak to the cultural belief regarding the undying and ephemeral nature of the human spirit. In *A Dictionary of Symbols*, J. E. Cirlot, writes, "Every winged bird is symbolic of spiritualization. This interpretation of the bird as symbolic of soul is very commonly found in folklore all over the world" (28). The Yamato story illustrates a cultural understanding of the reincarnation which takes place after death and speaks to the essentially transient nature of the human body. Indeed, one gets the impression that in this culture, the living body is considered to be the temple which houses the energy of the divine spark within, the Buddha nature. Once released from the body, the spirit of Prince Yamato does not come to end; rather, his spirit is imaged as a bird, and his essence soars heavenward.

After the death of the earthly human body, each of the mythical characters continues to display an earthly presence, one on Mt. Kagu and the other as a bird in flight. Both demonstrate the Buddhist belief that the spirit, or soul, can exist on earth and yet outside of time and space. In his commentary of the *Tibetan Book of the Dead*, Jung argues that the "Eastern" mind accepts as self-evident fact" the "supra-temporality of the soul" (*CW* 11: 837). The "Western mind," Jung explains, has difficulty with the notion that the soul or psyche is not necessarily ego bound (*CW* 11: 835). His Holiness The Fourteenth Dalai Lama further explains:

> The basis on which Buddhists accept the concept of rebirth is principally the continuity of consciousness. . . . So, there is a constant cycle, in which the universe evolves and disintegrates, and then comes back again into being. (qtd. in S. Rinpoche 94)

It is the continuity of consciousness which is expressed in both of these ancient mythological tales. The idea that the soul can and does exist outside of the body is expressed in the fourteenth-century jisei of Zen monk, Koho Kenichi:

To depart while seated or standing is all one.

All I shall leave behind me

Is a heap of bones.

In empty space I twist and soar

And come down with the roar of thunder

To the sea.

(qtd. in Hoffmann 107)

Professor of Eastern Philosophy at the University of Haifa Yoel Hoffmann explains: "Death in a Zen sitting position or death standing up was considered worthy of an enlightened person" (107) In Kenichi's verse the Western reader is left to question what exactly is twisting and soaring in empty space. The jisei highlights the belief that in the absence of the body, the spirit of the once living monk can and does exist outside of both space and time, thus reinforcing Jung's argument regarding the acceptance of the supra-temporality of the spirit in Eastern traditions.

The Many?sh? emerged from the Japanese tradition at approximately the same time as the Ko-ji-k*i.* Dating from the late eighth century, it is the oldest anthology of Japanese poetry in existence. Whereas the Ko-ji-ki was the production of a sovereign, the Many?sh? is a collection of over 4500 poems and includes poetry written by sovereigns as well as commoners, beggars, men, women, city dwellers, and those from the countryside. In the introduction to the 1965 Columbia University Press translation of the Many?sh?, Japanologist Donald Keene explains:

> The Anthology reflects Japanese life and civilization of the 7th and 8th centuries, and not only does it record indigenous thoughts and beliefs, but also touches, even if only casually, upon Buddhism, as well as Confucianism and Taoism imported from the continent. (xiii)

This extraordinary collection of poetry encompasses twenty books and gives the modern reader an opportunity to glimpse the collective Japanese culture as it existed over one thousand years ago. Keene describes the collection as "combining sincerity with dignity, and elegance with pastoral simplicity" (xiv).

Jisei found in the Many?sh? include a poem written by Prince ?tsu (663-86 AD), the third son of Emperor Temmu and heir to the throne. In his twenty-fourth year, a military coup arose and this young prince was imprisoned and condemned to die. In tears, awaiting his execution, he wrote,

> Today, taking my last sight of the mallards
>
> Crying on the pond of Iwaré,
>
> Must I vanish into the clouds! (Keene, *Many?sh?* #47)

In "The Soul and Death," Jung argues: "The birth of a human is pregnant with meaning, why not death?" (*CW* 8: 803). This young man is clearly distraught as he faces his own death, yet his jisei is indeed pregnant with the belief that his own death is not a final ending. Prince ?tsu writes that he will vanish*,* thus implying that his consciousness or psychic energy will not cease to exist. In "Psychological Commentaries on 'The Tibetan Book of The Great Liberation,'"Jung writes, "The Eastern mind, however, has no difficulty in conceiving of a consciousness without an ego. Consciousness is deemed capable of transcending its ego condition; indeed, in its higher forms, the ego disappears altogether" (*CW* 11: 774). On the topic of the western understanding of the concept of consciousness, in "The Soul and Death," Jung writes,

> Consciousness moves within narrow confines, within the brief span of time between its beginning and its end . . . . Beginning and end are unavoidable aspects of all processes. Yet on closer examination it is extremely difficult to see where one process ends and another begins, since events and processes, beginnings and endings, merge into each other and form, strictly speaking, an indivisible continuum*. (CW 8: 812)*

It is clear from the writings of Prince ?tsu and those before him that the lived experience of what Jung refers to as the Eastern mind is that of an indivisible continuum of life. The cloud image expressed in this jisei refers to the ephemeral nature of the clouds in conjunction with the transient nature of life itself. The Buddha said:

> *This existence of ours is as transient as autumn clouds.*

To watch the birth and death of beings is like looking at the movements of a dance.

A lifetime is like a flash of lightning in the sky,

Rushing by, like a torrent down a steep mountain.

(qtd. in S. Rinpoche, 25)

Another ancient text emerging from Japan is the H?j?ki, a thirteenth century text written by Kamo no Ch?mei, in which he too poetically expresses the impermanent nature of life:

> The flow of the river is ceaseless and its water is never the same. The bubbles that float in the pools, now vanishing, now forming, are not of long duration: so in the world are man and his dwellings. . . . The city is the same, the people are as numerous as ever, but of those I used to know, a bare one or two in twenty remain. They die in the morning, they are born in the evening, like foam on the water. (Hori 448)

Poetic descriptions of life cycles in nature are commonly in evidence in ancient as well as more modern Japanese writings. Hoffmann explains that jisei often contain images of certain buds, flowers, or trees which are only in evidence during the season of the individual writer's death (46). One example of these images would be found in the jisei of Zen monk and haiku poet, Benseki. In 1728 at the age of eighty, Benseki was dying. In his last moments he wrote:

Child of the way,

I leave at last -

A willow on the other shore. (Hoffmann 144)

Hoffmann explains that in Benseki's older years he had become a monk and renamed himself Honi, or "child of the way" (145). The first line is a sort of play on words using his name while also highlighting the essential child-like nature as he enters this next phase of life (144). Hoffmann continues, "A willow tree is often mentioned in haiku as a picture of spring, its branches covered with green and drifting in the wind" (145).

Another haiku style jisei comes from haiku poet Michikaze, who died in 1709 at the age of sixty-nine. He writes:

Today I put on summer

Clothes and journey

To a world I haven't seen yet. (Hoffmann 243)

In the anthology entitled *Haikai and Haiku*, Sanki Ichikawa writes, "One might indeed suggest that haiku is often a written picture, just as suibokuga (India ink drawing) is a picture poem" (ix). Of the haiku style of poetry, he explains:

> *Haiku* is always treated as a one-line poem . . . . This springs from the conception that each emotion is single, indivisible, perfect whole, the momentary essence of which can be expressed by a few significant words. (ix)

Although not all jisei are written in haiku form, these death verses, haiku or otherwise, are an imagistic representation of the musings and meanderings of the human psyche as it

goes through the dying process. When a jisei is expressed in the haiku style, the singularity of emotion imaged by the author offers the reader the opportunity to enter into the emotions of the individual author in the time of dying. The imagery produced in this time of life and displayed in the collections of jisei give the reader a means of exploring the way in which the Buddhist psyche experiences the time of dying.

In his essay entitled "The Soul and Death," Jung writes, "Dying, therefore, has its onset long before actual death" (*CW* 8: 809). The writings of both Benseki and Michigaze give poetic expression to the dying process and display the belief that physical dis-integration and the death of one's human form does, of course, begin before actual death. Yet what is eminently clear from these poetic expressions is that in Japanese culture physical death is not synonymous with death of the psyche. Benseki and Michigaze each write of a journey which begins after the demise of the human body, and the focus of the writing is on the impermanent nature of all life forms, human bodies included. Japanese historian H. Paul Varley, writing in the *Cambridge History of Japan*, describes this cultural phenomenon, explaining that the Japanese exhibit a

> traditionally keen sensitivity to the mutability and evanescence of all things. The central idea of beauty in Japan had always been a beauty of perishability, found most typically in the changes of nature brought about by the passage of the seasons. Buddhism, with its belief that the world is in constant flux, deepened and rendered more poignant this native feeling for change. (Vol. 3)

Within the Buddhist tradition, the time of dying is both sacred and unique; however, death is not without its questions. Sogyal Rinpoche asks, "What is happening when we die? It is as if we are returning to our original state; everything dissolves, as body and mind are unraveled" (254). In his essay entitled "Concerning Rebirth," Jung writes, "Nature herself demands a death and a rebirth" (*CW 9*i: 234). The creation of a jisei honors the time just before this dissolution and give expression to the last thoughts captured on earth from the psyche of the individual. The nationalization in Japan of this literary form allows one to explore not merely the individual psyche but also the cultural collective psychology which informs the creation of this genre. Tibetan Buddhist master Sogyal Rinpoche writes of the evanescent nature of existence. One's ever-changing facial expressions, feelings, and emotions are in a constant state of flux and one cannot know how one will feel even a moment from now. Sogyal Rinpoche writes:

> The fear that impermanence awakens in us, that nothing is real and nothing lasts, is, we come to discover our greatest friend because it drives us to ask: If everything dies and changes, then what is really true? Is there something behind the appearances, something boundless and infinitely spacious, something in which the dance of change and impermanence takes place? Is there something in fact we can depend on, that does survive what we call death? (40)

The question that Sogyal Rinpoche poses as to what comes next is, of course, unanswerable for those who are still living. What is stressed in the Buddhist tradition is the importance of preparation of one's mind for the inevitable moment of one's own death. In "The Soul and Death," Jung writes, "Death is known to us simply as the end. It is the period, often placed before the close of the sentence and followed only memories or after-effects in others (*CW 8*: 796). Yet, this western conception does not hold true for the

Buddhist understanding of death. For the Buddhist, the death of the body is merely one step along the path towards Enlightenment. The state of mind of the dying person is given great importance in the Buddhist tradition.

Sogyal Rinpoche suggests, "The most essential thing in life is to establish an unafraid, heartfelt communication with others, and it is never more important than with a dying person" (173). The purpose of this is to create the peaceful atmosphere in which the dying can feel "as unconditional a love as possible, [and be] released from all expectations" (175). It is from within this place of psychic nurturance and comfort that the dying individual is able to be at peace as he or she approaches his or her own death. It is from this peaceful place, filled with loving acceptance, that the jisei of many of the Zen masters was recorded. Surrounded by their disciples, the masters produced verses such as this jisei of the seventh Dalai Lama:

Body lying flat on a last bed,

Voices whispering a few last words,

Mind watching a final memory glide past:

When will that drama come for you? (qtd. in S. Rinpoche 22)

Whereas many of the jisei speak of the beauty and transcendence, others reflect the very human discomfort which can accompany the dying experience. On July 19, 1888 as calligrapher, fencer, and Zen master Yamaoka Tesshu prepared to die, he spoke his death verse:

Tightening my abdomen

against the pain -

The caw of a morning crow. (Blackman 101)

In her book entitled *Graceful Exits*, Sushila Blackman explains that Tesshu's disciples were hesitant to release these final words of the master because of the presence of the word pain. Yet, Abbot Gasan described it as a "magnificent death verse" (qtd. in Blackman 101), as it captured the events of the moment of dying. Tesshu was hemorrhaging from his stomache cancer and a crow had flown by at that time. Gasan explains that it was these "two events which filled the cosmos" (qtd. in Blackman 101). One must note that the beauty of the jisei does not in any way negate the very human experiences of the dying process and the pain which can accompany that time of life. Abbott Gasan expresses the truth that pain is a part of the human experience and must be honored as such. Human suffering is in no way negated by honoring the dying process; rather, through the creation of jisei, ritual form is given to the process of dying marking this time of life as one of sacred significance.

Sogyal Rinpoche writes of the importance of being with a dying person as he or she suffers both pain and loss. He expresses the importance that one who is the caregiver to the dying person care enough to *try* to understand the dying person (177):

> On a deeper spiritual level, I find it extremely helpful to always remember the dying person has the true buddha nature, whether he or she realizes it or not, and the potential for complete enlightenment. As the dying come closer to death, this

> possibility is in many ways even greater. So they deserve even more care and respect. (177)

Viewed as a national phenomenon, collections of *jise*i offer unique psychological insights into the belief systems of the Buddhist practitioner as regards the time of dying. In his book, *The Wheel of Death*, Teacher of Zen Buddhism Philip Kapleau expresses his concern that "much has been written about the psychological, sociological, and physical aspects of death, curiously, little has been said about the vital need for spiritual guidance through the dying process" (xv). With thorough study of the images and depth psychological themes which emerge in the jisei of historic and modern Japan, one is better able to understand how a dying person from the East might understand and engage with the dying process. While this section has focused on the more ephemeral teachings of many jisei, no study of this genre could approach completion without the following story of the death of Zen Master Tenn? told by Kapleau:

> When the master was dying, he called to his room the monk in charge of food and clothing in the temple. When the monk sat down by the bed, Tenn? asked, "Do you understand?"

"No" the monk replied.

Tenn?, picking up his pillow, hurled it through the window, and fell back dead. (37)

As Sogyal Rinpoche says in his *Tibetan Book of Living and Dying*, "what is important is that the one present try to understand the one who is dying. He does not say that one must be successful." (177)

Psyche and Nature: The lived experience of impermanence in a modern-day hospice

> Art is a kind of innate drive that seizes a human being and makes him its instrument. The artist is not a person endowed with free will who seeks his own ends, but one who allows art to realize its purposes through him. As a human being he may have moods and a will and personal aims, but as an artist he is "man" in a higher sense - he is "collective man," a vehicle and molder of the unconscious psychic life of mankind.
>
> \- C. G. Jung, "Psychology and Literature" (*CW* 15:157)

In 1974, Connecticut opened the first hospice in the United States and by doing so began the American hospice movement. They created a specialized style of care dedicated to "add[ing] life to the days of patients with progressive irreversible illnesses" (www.hospice.com). The idea of helping the dying live out their days in a more comfortable and less medically invasive setting was new to the American culture. The American medical model is actively geared towards interrupting the process of morbidity and subsequent mortality. But in the hospice setting, patients and doctors acknowledge that dying is a natural process and at some point they respect that no intervention can save the human body from the impermanence of nature. What can be done, however, is palliative care - the care which provides comfort as one goes through the final transitions of life.

Although modern American culture does not always seem to value the natural rhythms of the human psyche, there are places in the world which blend nature and technology in

unexpected and beautiful ways. In her article “Art and Nature,” visual artist Margot McLean explains this phenomenon: “Things work on us all the time. Our senses are relentlessly engaged, and my job as an artist is to make something of these things that move us, disturb us, bore us, anger us” (107). An artist or architect who is able to engage the natural world in his or her work creates a work of art which is able to move one through its engagement with the landscape. McLean believes:

> Being an artist whose work is directly related to the natural world, I find myself working “in” the outside world and working “in” the inside world of my studio, crisscrossing constantly between the two. (107)

When an architect is able to create a building that is in tune with the felt experience of the landscape, one is struck by the beauty of the creative human psyche in concert with the environment. In his book *Field, Form, and Fate,* Jungian analyst and founder of the Assisi Institute Michael Conforti describes this sort of creation as “the relationship between the instincts, archetypes, and patterns [which] are important to any investigation involving the emergence of form” (1). He continues:

> The instinct carries with it an imperative that compels the individual and group within its influence to action, as a motive force to be followed. Both in the biologically driven instincts - such as the need to eat, drink, and sleep - or in the psychobiologically/archetypally derived instinctive patterns - such as the need to couple, to relate, to retaliate - we see the life process continually directed by instinctive forces. (1)

The home of Connecticut Hospice in Branford, Connecticut is such a building.

Placed on a beach where the vast Atlantic Ocean laps up onto the shores of North America, the east-facing wall of the hospice building is all windows, and every patient room has one wall that is entirely composed of translucent glass. Each hospice bed is turned to take full advantage of a glorious view of the ever-changing natural world. The windowed wall creates the illusion of a confluence between the controlled inside space and the natural world outside.

This structure is deeply mythic in the sense that its placement in the landscape and its modern usage encourages those inside to live and be bathed in a structural metaphor; a safely protected experiential bridge between one’s individual psyche and the ebb and flow of a beach front ecosystem.

Working to elucidate the mythic nature of the beach and the ocean, Tamra Andrews, author of *A Dictionary of Nature Myths*, explains:

> The sea has always represented magic and mystery. It symbolizes life (many called it the source of all life), and it existed in the beginning of time before the earth was formed. The notion of the primordial sea arose in cultures around the globe and was founded on the notion that water, as an element, held a myriad of possibilities. The ancients perceived the sea as both creator and destroyer, and they saw it as an animate being, singing or moaning with each rush of the waves and sighing and breathing with the ebb and flow of the tides. (171-72)

Through the windows of hospice, a person's gaze is drawn into a unique relationship with the beach and the waters of the Long Island Sound. Sunlight dances on the beach,

constantly changing the lighting on the leaves on the trees, the sand, and the water. The tides create patterns in the sand, as do the imprints of tiny feet of the myriad birds present on the shore. With the incoming tide, new lines are erased by the rising water moments later. There is an ephemeral quality to these sand imprints that keeps psyche in relationship with the impermanence of the natural world. The washing away of the sand imprints metaphorically reflects the concerns of the imprints inside. Like the sand imprint, the dying patient leaves a unique, yet impermanent mark on the world.

The impermanence of nature is on constant display through the larger windows. In his article "Psyche and Nature," Pennsylvania State University Professor of Philosophy Glen Mazis credits Lao Tzu as having "articulated the world as a 'way,' or Tao, of continual transformation where human and nature, spirit and matter, were interpenetrating and yet distinctive" (2). A sort of *communitas* is established between the patient on the inside and the natural world on the outside. Through the translucent glass, the outer experience of the natural world penetrates the felt inner landscape. Buddhist scholar and meditation master Dzogchen Ponlop Rinpoche discusses the nature of impermanence from the mythic viewpoint of the Buddhist tradition:

> Whether or not we are prepared, we will all meet the Lord of Death. Who is this great Lord and what is his power over us? This legendary figure that inspires so much fear is merely the personification of impermanence and cause and effect, or karma. In Buddhist literature, this Lord is invincible. (24)

In the hospice world, the mythic Lord of Death is ever present. At the same time, the psyche of individuals in the building is steadily and unflaggingly being bathed in the natural world. The wall of windows provides a visual interface between the outside world and the inside. The building itself engages an archetypal consciousness to soothe the dying. Conforti gives the reader a way to understand the idea of *an archetype*:

> The archetype, according to C.G. Jung (1875-1961), is a preexistent, non-personally acquired informational field in the collective unconscious. The archetypes themselves can never be fully known or seen, but only gleaned from their incarnations as symbols and images, in situations, and through synchronicity, etc. (1)

Being in the presence of death is deeply affecting. In the mythic landscape of this building, one is surrounded by the cycle of birth, death, and renewal which occurs constantly in the natural world.

The Long Island Sound, a body of water contiguous with the Atlantic Ocean, is the backdrop for the myriad birds which fly free outside of the windows. It is an absorbing experience to watch a gull pick up an oyster or clam, raise it up 30 or 40 feet, and drop it on the rocks to break the shell open. For the gulls, these fish are sustenance. For the shellfish, this is the end of life. The cycle of life which so captivates the viewer from inside the hospice is a reminder that life and death exist in delicate balance with each other. Andrews writes:

> In the context of nature mythology, the notion of death relates to the cycles of the sun, the moon, the earth, and the tides. The ancients witnessed these births and deaths and structured their lives by these rhythms of nature. They saw death in their world everywhere. (53)

“Birds of all forms,” continues Andrews, “appear in myths as symbols of celestial power . . . , because birds could transverse heaven and earth, they often served as messengers between gods and people” (26-27). The building itself, along with the activities within, creates an emotional bridge between the hospice world and the mythic realm.

The work of hospice care is to provide comfort to fellow human beings as they enter into a direct experience with the yin/yang of life and death. It is the moment we all must face, the moment when we realize that our bodies are a part of nature, and like all other natural phenomenon, we too will die away. Ponlop Rinpoche writes:

> Ultimately, what we call life is just an illusion of continuity - a succession of moments; a stream of thoughts, emotions, and memories, which we feel is our possession. And, therefore, we too spring into existence, as the possessors of that continuity. However, upon examination we discover that continuity is dreamlike, illusory. (25)

The view onto the natural world in the hospice continually grounds the patients and the caregivers in the cycle of life and death of which we are all a part. Mazis speaks of “our human 'earthbodies' as part of a dynamic process and [our bodies] are sensual, perceptual, and feeling conductors through which richer meaning flows than we can grasp intellectually” (3). In this building, one's psyche is bathed in the image of the natural world with its glory, its joys, and its dangers. The cannibalism of the ocean is just under the surface of the water, and one can watch as seagulls drop shellfish onto the rocks to shatter the shells and feed themselves so that they may survive another day. Andrews writes, “The concept of death in nature was a promise of hope. Life receded into death like the ebbing tide receded into the sea. But like the tide, life reliably returned” (53-54).

The hospice patient experiences the death and rebirth in the natural landscape from the safety of the hospice. Inside, the patients are cared for by people with access to the most modern medical technologies available. It is on the inside of the window where the patients can be kept warm when it is cold out and dry when it is raining, and where physical pain can be mitigated with medications. And yet, the image of nature and its effects on psyche can be felt inside these walls. Conforti writes:

> Through Lazlo's idea that field predates form, we can perhaps better understand Jung and Hillman's notions about the primacy of the image. The image, as a representative of a specific archetypal field, carries with it its own inherent morphology and information and, when accessed, entrains the individual or culture into that archetypal field. (17)

Upon entering into this hospice building, it is extraordinary to feel the inner transformation which occurs as one’s imagination is engaged by the view of the Sound. The transformative nature of hospice work itself touches the core of one’s being. In “Mind and Earth,” Jung explains:

> The archetypes are, as it were, the hidden foundations of the conscious mind, or, to use another comparison, the roots which the psyche has sunk not only in the earth in the narrow sense but the world in general. . . . They are thus, essentially, the chthonic portion of the psyche, if we may use such an expression - that portion through which the psyche is attached to nature, or in which its link with the earth and

> the world appears most tangible. (*CW* 10: 53)

From the moment of our birth, we approach our death. But the death of the body of the hospice patient is imminent. Those people inside the building can inevitably be seen gazing out of the windows onto the natural world beyond the hospice world. Perhaps, as cultural ecologist and founder of The Alliance for Wild Ethics David Abram argues, this is a

> way the senses themselves have of throwing themselves beyond what is immediately given, in order to make tentative contact with the other sides of things that we do not sense directly, with the hidden or invisible aspects of the sensible. (58)

The inner world of this building is both quiet and respectful. Upon entering the space, one is bathed in the beauty of the visual world as well as the soft sounds of live music being played in the entryway. This music helps to decorate the space in the same way that the oceanic waves do. A quietly respectful sound, this music is in direct contrast to the "noise" which Jung wrote about in his letter to Professor Oftinger in 1957: "Noise is welcome because it drowns the inner instinctive warning. Fear seeks noisy company and pandemonium to scare away the demons" (159).

Here in hospice, the patients and the staff create a quiet environment which feels deeply respectful of the power of the natural process which is occurring within these walls. This is an environment consciously created to provide comfort to the dying. Jung explored the role of noise in the human experience: "Noise protects us from painful reflection, it scatters our anxious dreams, it assures us that we are all in the same boat and creating such a racket that nobody will dare to attack us" (159). The quiet sounds of music permeate the inner environment of the hospice and encourage personal reflection and expression of one's own psyche. In her article "Temple to Gravity," psychologist and director of Depth Psychology Programs Meredith Sabini explains: "Activated by this return of psyche to its home in nature are 'imaginal fields,' or mythic motifs" (143). This place is deeply mythic.

The oceanic terrain outside of the windows engages the viewer. However, as Mazis points out, "the mountain is the mountain, and the artist is the artist: their boundaries entwine and reverse in the process of painting, perceiving, and expressing, but, remain distinct" (4). The world inside the hospice is not one with the outside world. The living body of the dying patient is in a fragile state and that fragility is protected in this environment. The animalistic nature of the outside world is kept safely at bay inside these walls.

What could be more mythic than the deep understanding within the human body as it entertains the notion of its own impermanence? Mazis writes:

> Jung concludes that the West is challenged by the "cult of consciousness" and in need of a "new integration" of psyche" (*CW* 13 § 71). In his "attempt to build a bridge of psychological understanding between East and West," Jung hopes we can move towards a shift in which "the subjective 'I live' becomes the objective 'It lives me.'" (17)

The felt experience of being lived by the nature myth is powerful in this building. The essential impermanence of our lived humanity is present in every facet of the inner and

outer landscape at Connecticut Hospice. It is a place where *it lives me* takes on deeply beautiful meaning in the busy world of twenty-first-century America.

Chapter 5

End of Life Dreams: An examination of the relationship between the sleeping body, the dreaming mind, and the end of life

> [Symbolic language] is the one universal language the human race has ever developed, the same for all cultures and throughout history. It is a language with its own grammar and syntax, as it were, a language one must understand if one is to understand the meaning of myths, fairy tales, and dreams.
>
> - Erich Fromm, *The Forgotten Language*

Myriad causes lead to the end of an individual life, but ultimately, regardless of the road one takes to get there, it is cardiac arrest that causes one's life to cease. The physiology that keeps a healthy heart beating from birth until death gradually changes over the course of a fatal illness, those changes ultimately causing the heart to stop. The neurophysiology of the body over the course of a lifetime is a profoundly complex system. Suffice it to say that as complicated as the human body is, there are only a limited number of biologically active chemicals involved in its physiology. The many interactions of these same biochemicals cause one to become tired, to fall asleep, and to dream. Physiologically speaking, the human body can be understood to be an integrated living system, the functioning of which is both created by and determined by its biochemical interactions.

Long understood to herald the end of a life, dreams have been recorded in drawings and in written literature since the earliest times in human history. In this chapter, I argue that literature about the history of humanity supports the hypothesis that dreams of individuals give imagistic representation to the state of one's body, and conversely, one's body gives concrete representation to one's psyche.14 Psychoanalyst Erich Fromm argues that the body is an expressive symbol of one's inner self:

> We express our moods by our facial expressions and our attitudes and feelings by movements and gestures so precise that others recognize them more accurately from our gestures than our words. Indeed, the body is a symbol - and not an allegory - of the mind. Deeply and genuinely felt emotion, and even any genuinely felt thoughts, is expressed in our whole organism. (17)

In Fromm's model, body and psyche are integrated such that the human body itself is one way in which the human psyche expresses itself. I contend that the physiology of the body creates the imagistic representations *seen* by the dreaming mind. Therefore, a study of the dreams of individuals living at the end of the life trajectory provides researchers with a unique perspective on the dying process.

This argument will be presented in three parts. The first section describes the ways in which current dream research firmly roots the experience of dreaming in the physiology of the sleeping body. The second section focuses on the dream images noted to appear

with increased frequency in dreams dreamt by individuals at the end of life. The final section uses the Hall-Van de Castle system of dream analysis and highlights a content analysis performed on a collection of thirty dreams experienced by thirty different individuals living at the end of the life trajectory.

On the physiology of the sleeping body and the dreaming mind

Written records exist to prove that for more than four thousand years people have dreamt while they slept. Remarkably, many individuals who lived all those years ago chose to record their dreams in written texts. Modern researchers are fortunate to have a multitude of dreams spanning four millennia and emerging from a wide variety of populations and cultures. In addition to having been recorded for thousands of years, dreams of antiquity were accorded interpretive significance, and many of those interpretations have been preserved and are available for study.

Better known dreams of antiquity are those that have been dreamt and recorded by so-called *important* people such as kings (Gilgamesh, Enkidu, Egyptian pharaohs [Gen. 41:14-24]), and biblical figures (Jacob [Gen. 28:10-22], King Nebuchadnezzar [Dan. 4:19-37], Joseph [Matt. 2:12]). Beyond the dreams of monarchs and men deemed as prophets, the dreams of great philosophers such as Socrates (von Franz, *Dreams* 52) and Descartes (von Franz, *Dreams* 107) have been recorded and explored for centuries. Even the dreams of the brilliant twentieth-century scientist Albert Einstein (1879-1955) were recorded and analyzed by psychoanalysts such as Joseph Katz, a senior member and Faculty Emeritus of National Psychological Association for Psychoanalysts (Katz 351). Fromm argues:

> The dreams of someone living today in New York or in Paris are the same as the dreams reported from people living some thousand years ago in Athens or in Jerusalem. The dreams of ancient and modern man are written in the same language as the myths whose authors lived in the dawn of history. (7)

The continuity of the quality of dream themes and the surreal qualities of dream images have remained uncannily constant over the course of the last four thousand years.

As noted, there is a great deal of extant literature describing the dreams of the great beings in human history. But dreams are not only the purview of the so-called great ones among us. Historic texts bear witness to the fact that not only were the dreams of the privileged recorded, but the dreams of everyday people were considered important enough to be recorded as well. Professor of History at the University of Denver J. Donald Hughes explains:

> The oldest written evidence of dream interpretation comes from ancient Mesopotamia and Egypt. Dreams and their meanings are recorded in inscriptions, literary documents, letters, funerary texts, and dream-books, showing that dreams had an important place in the government, religion, and daily life.(7)

There can be no question that dreaming has long been a part of the human experience. The conjecture that the dream experience is rooted in human biology has been posited for at least two thousand years, but only recently has the physiologic connection been able to be scientifically delineated. Over the course of the last thirty years, scientists have been able to demonstrate the biologic relationship between the experience of dreaming and the

human body. By virtue of living in the human body, all of us, rich or poor, educated or not, have the mysterious experience of dreaming during sleep.

Extant dream collections from antiquity include dreams of religious figures and monarchs, but historical texts exist that include and document the dreams of ordinary people living everyday lives. Examples include The *Babylonian-Assyrian Dream Book,* dating back at least 3-4 millennium; *The Egyptian Dream Book,* composed of dream fragments and their interpretations dating from the seventh century BC; and the *Oneirocritica: The Interpretation of Dreams,* a collection of dreams and their meanings compiled by second century BC Greek oneiromancer ("dream interpreter" from the word *oneiro* from the Greek meaning "dream") Artemidorus. And historic records support the fact that from the earliest times in recorded history individuals have sought out dream interpreters to translate the language of dream from metaphor to the language of the day, such that the dreamer is be able to utilize the information received in a dream. Professor of Greek Language and Literature at the Radboud University (Netherlands) A. H. M. Kessels explains:

> Quite early in history man started trying to interpret his dreams. He did not ask himself in the first place how a dream came about, for this was and remained unexplainable and was therefore ascribed to the influence of the gods. The question asked was - "What can I do with it?" The interpretation in practice turned out to be an effort to find a clue as to the possible relation of the dream with the future fate of the person concerned. (390)

The belief that dreams were god-given is demonstrated in both the dream of Enkidu, discussed in chapter 2, and the dream of Isaac, discussed in chapter 3. Oneiromancers of antiquity evaluated dreams for their usefulness to the dreamer, but interpreters understood that it was possible for one person to dream for another. An example of this is the dream given to Isaac portending the fate of his father Abraham. (While the notion that one might dream an image portending the fate of another is fascinating, the physiology of such a phenomenon is outside of the scope of this project and thus will not be addressed in this work.)

Dreams were believed to have several functions, one of which was to prophesy future activities of the dreamer. Examples include dreams such as those found in the Babylonian-Assyrian Dream Book (c. second and first millenia BC), translated by President of the International Association of Papyrologists and Fellow of the American Academy in Rome Naphtali Lewis in his work *The Interpretation of Dreams and Portents*:

> * If a man [the dreamer in the dream] kisses a dead person, he will stand up (in court) against his adversary. (16)

or:

> * If his urine expands in front of his penis and fills all the streets, his property will be robbed and given to the city. (16)

Alternatively,

> * If his urine expands in front of his penis and he does obeisance in front of his urine, he will beget a son and the son will be king. (16)

Similar sorts of examples can be found in the highly regarded work of second century AD Greek oneiromancer Artemidorus Daldianus. Written as a guidebook for his son, the *Oneirocritica*: *The Interpretation of Dreams* is considered by Yale University trained scholar and translator Robert J. White to be "the most comprehensive, the most sought after and the most quoted book on dream interpretation to have been written from antiquity to the present times" (6). Dreams recorded in this work, in which the dreamer is given a prophecy regarding his or her life situation, include:

* For a poor man to dream that he is struck by a thunderbolt . . . signifies wealth. (30)

* Being anointed with unquents is auspicious for all women except adulteresses. But it predicts disgrace for all men except those who are customarily anointed. (75)

As demonstrated above, some dreams were believed to prophesy certain activities in the life of the dreamer. Yet other dreams were understood to refer directly to the health of the dreamer. Dreams from *The Egyptian Dream Book,* a collection described by Lewis as "the oldest extant work on the interpretation of dreams, may date from as early as ca. 2000 B.C." (7) includes several dreams which are self-referential to the health of the dreamer. Examples include:

* If a man dreams of stirring up his house, BAD; it means his falling ill. (Lewis 12)

* If a man dreams of seeing people afar off; BAD; his death is at hand. (Lewis 13)

Examples cited above come from the mists of antiquity, a time in human history described by James Longrigg, Professor of Ancient Philosophy and Science at University of Newcastle, as a period of "pre-rational or irrational medicine" (1). Irrational medicine, explains Longrigg, refers to a time in prehistory when the cause of human illness was ascribed to the Gods (1). In his book entitled *Greek Medicine: From the Heroic to the Hellenistic,* Longrigg observes:

> In both of these ancient societies [Egypt and Mesopotamia] diseases were held to be the manifestations of the anger of the gods. The physician's role was to appease the god and drive out the demon possessing the sick person's body. (5)

In ancient Greece, known to be the cradle of modern western thought, philosophers and physicians questioned the god given nature of disease. In 350 BC, Greek philosopher Aristotle wrote his treatise *On Prophesying By Dreams.* Aristotle is recognized by scholars such as Oxford University Professor of Philosophy Christopher Shields as one of "the greatest philosophers of all time" (2008). Although he is considered to be one of the great rationalists of antiquity, Aristotle is unable to explain the occasional portents in dreams that are prophetic of future events. In his treatise *On Prophesying by Dreams,* Aristotle argues:

> As to the divination which takes place in sleep, and is said to be based on dreams, we cannot lightly either dismiss it with contempt or give it implicit confidence. The fact that all persons, or many, suppose dreams to possess a special significance, tends to inspire us with belief in it, as founded on the testimony of experience; and indeed that divination in dreams should, as regards some subjects, be genuine, is not incredible, for it has a show of reason; from which one might form a like opinion also respecting all other dreams. (1)

Having acknowledged that some dreams seem to accurately prophesy the future, Aristotle turns his examination to the relationship between the state of one's body and one's dreams. He argues that during sleep one's body is sensitive to subtle movements, attention to which is lost during the day. After some discussion of this problem, he concludes:

> Are we then to say that some dreams are causes, others token, e.g. of events taking place in the bodily organism? At all events, even scientific physicians tell us that one should pay diligent attention to dreams. . . . But since the beginnings of all events are small, so, it is clear, are those also of the diseases or other affections about to occur in our bodies. In conclusion, it is manifest that these beginnings must be more evident in sleeping than in waking moments. (1)

Aristotle's line of reasoning demonstrates the integral nature of dreams in the medical diagnostic tradition of ancient Greece.

Works written just prior to those of Aristotle include the extensive corpus of literature understood to have been composed by fifth to fourth century BC Greek physician Hippocrates and his followers. In his introduction to the Penguin Classic edition of *Hippocratic Writings,* Senior Tutor at King's College, Cambridge University, Geoffrey Ernest Richard Lloyd:

> In Western medicine, the name of Hippocrates has always stood for an ideal. Until comparatively recently in the history of Western medical thought, his views - that is, the views of the works that passed for his - were accepted as authoritative on all kinds of medical problems, and medical students read their Hippocrates not out of piety but as an essential part of their training as doctors. (9)

The so-called *Hippocratic Corpus* includes volumes of the works of Hippocrates and many works attributed to him by those who practiced in his tradition. The section of the *Corpus* entitled *Regimen* outlines various treatment regimens for all manner of different ailments and includes "a short treatise on the medical significance of dreams" (*Hippocratic Writings* 252). On the subject of diagnostic dreams, Hippocrates writes,

> Accurate knowledge about the signs which occur in dreams will be found very valuable for all purposes. . . . When the body is sleeping it receives no sensations, but the soul being awake at that time perceives everything; it sees what is visible, it hears what is audible, it walks, it touches, it feels pain and thinks (*Hippocratic* 252)

Longrigg discusses the move from *irrational* to *rational* medicine: "The Greeks invented rational medicine. It was they who first evolved rational systems of medicine for the most part free from from magical and religious elements and based upon belief in natural causation" (1). This shift is evident in the following examples of dream images being used for diagnostic purposes excerpted from Hippocrates *Regimen IV, On dreams*:

> * It is a good sign to see the sun, moon, sky and stars clear and undimmed, each being placed normally in its right place, since it shows that the body is well and free from disturbing influences.
>
> . . . On the contrary, if any of these celestial bodies appear displaced or changed then such a sign indicates bodily disease, the severity of which depends on the seriousness of the interference. (253)

> * Trees that do not bear fruit indicate destruction of the human semen; if trees are losing their leaves the cause of the trouble is wet and cold; if they are flourishing but barren, heat and dryness. In the one case, the regimen should aim at warming and drying; in the other, at cooling and moistening. (257)

Examples cited above provide ample evidence that from the earliest times in human history to at least the time of Hippocrates and Aristotle, dreaming was recognized as endemic to the human condition. Additionally, the history of humankind included the belief and/or knowledge that dreams dreamt by an individual, whether believed to be god-given or otherwise, provided imagistic metaphors for certain aspects of the dreamer's body.

As science moved understanding of the human body forward, the link between one's dreams and one's physiology began to be illuminated. In 1953, researchers Nathaniel Kleitman and his student Eugene Aserinsky, working at the University of Chicago, described a physical phenomenon that changed the way modern medicine viewed sleep and dreams. Publishing in 1953 the journal *Science*, Aserinsky and Kleitman define and describe the phenomenon that has come to be known as REM sleep:

> The fact that these eye movements, EEG15 pattern, and autonomic nervous system16 activity are significantly related and do not occur randomly suggest that these physiological phenomena, and probably dreaming, are very likely all manifestations of cortical17 activity which is encountered normally during sleep. (274)

More than 50 years ago, these scientists posited the notion that during sleep, the brain was not actually in a resting state. Additionally, they claimed only certain times in the sleep cycle to be dream generative. Aserinsky and Kleitman went on to prove that even though the body appeared to be resting during the sleep, certain areas of the brain were quite active. They demonstrated that while the sleeping body of the dreamer appears motionless, the muscles that control respiration as well as those which control the movement of one's eyes during sleep are indeed contracting and causing movement. Yet, in deep sleep, one's body appears to be completely still. These hypotheses and findings of Aserinsky and Kleitman opened a new path of scientific exploration that allowed scientists to begin to demystify the cortical activity observed in the tracings of the EEG recorded during sleep and work to explain the apparent conundrum of the selective and partial paralysis of the body that had been observed during REM sleep.

Three years after the original article published by Aserinsky and Kleitman, Kleitman again published an article on the topic of REM sleep. This article described the work done by Kleitman with University of Chicago colleague William Dement in the *Journal of Experimental Psychology*. The article, "The Relation of Eye Movements During Sleep to Dream Activity: An Objective Method for the Study of Dreaming" (339), detailed the observations of Dement and Kleitman regarding "periods of rapid, conjugate eye movements during sleep" (339). The two researchers found REM sleep to occur regularly during the sleep cycle and to be highly correlated with dream recall (339).

Together, these two papers heralded the discovery of REM sleep and ushered in a new period of sleep and dream research beginning in the mid-twentieth century. Since that time, REM sleep, non-REM sleep, and the transitional time between waking/REM/ and Non-REM states of consciousness have been studied independently and together as a

system. In addition, each aspect has been studied in its relationship to the dreaming mind. In the modern scientific world, the study of REM and non-REM sleep is in its infancy. Yet, Professor Subimal Datta, member of the Department of Psychiatry and Behavioral Neuroscience at Boston University School of Medicine, argues that the existence of these distinct phases of consciousness has been observed and described approximately three to four millenia prior to the work of Kleitman, Aserinsky, and Dement.

In an article entitled "Neurobiological Mechanisms for the Regulation of Mammalian Sleep-wake Behavior," in 2007 in the journal *Neuroscience and Biobehavioral Reviews*, Datta and Maclean describe the text in which ancient philosophers of the Indus Valley civilization noted the REM phenomena (777). The *M????kya Upanishad,* a sacred Hindu text dating between the sixteenth and eleventh centuries BC, describes four distinct states of consciousness: waking, non-dreaming sleep, dreaming sleep, and a totality of consciousness that embraces the other three states. The *M????kya Upanishad* teaches that it is these four states of consciousness that are the foundational essence of the holy AUM.18 Robert Ernest Hume, Professor of the History of Religions at Union Theological Seminary explains that these texts must be understood to be a part of "the long history of man's endeavor to grasp fundamental truths of being" (" Preface" vii). Hume writes: "In these ancient documents are found the earliest serious attempts at construing the world of experience as a rational whole" (2). The inclusion of the sleep state and dreams in this ancient sacred text from the Indus Valley highlights the importance of dreams in non-European cultures in human history. An explication of the text follows.

Four sections of this Upanishad have been excerpted below to compare and contrast the four levels of consciousness observed, studied, and explored by ancient man with what is known today. The translation used is that of twentieth-century Cambridge University trained Hindu scholar Sri Aurobindo. The sacred text begins:

> ** The Waker, Vaishwanara, the Universal Male, He is A, the first letter, because of Initiality and Pervasiveness : he that knoweth Him for such pervadeth and attaineth all his desires; he becometh the source and first. ("Mandukya")*

The concept of one's waking reality existing as but one part of one's conscious experience echoes the works of Aristotle, and yet, this concept may present difficulties for the twenty-first century Western reader. I argue that this difficulty arises in part from the profound influences of seventeenth century philosopher René Descartes (c. 1596-1650), a man heralded by the *Stanford Encyclopedia of Philosophy* as "the first modern philosopher" (Smith, unpaginated).

In his work *Meditations on First Philosophy,* Descartes sets out to establish a firm and abiding superstructure in the sciences (16) and in doing so lays the groundwork for the separation of the experience of the mind from the workings of the body; a concept later known as *The Cartesian Duality*:

> . . . I might consider the body of a man as a kind of machine equipped with and made up of bones, nerves, muscles, veins, blood and skin in such a way that, even if there were no mind in it, it would still perform all the same movements as it now does. (43)

Descartes constructed a philosophical argument based on an artificial separation of the

body from the mind, the so-called *Cartesian Dualism,* an idea that continues to undergird much of modern Western scientific thought. In an entry entitled "Descartes and the Pineal Gland," published in 2008 in the *Stanford Encyclopedia of Philosophy*, Cambridge educated senior researcher in Philosophy at Delft University of Technology Gert-Jan Lokhorst explains:

> In the *Treatise of man*, Descartes did not describe man, but a kind of conceptual model of man, namely creatures, created by God, which consist of two ingredients, a body and a soul. These men will be composed, as we are, of a soul and a body. First I must describe the body on its own; then the soul, again on its own; and finally I must show how these two natures would have to be joined and united in order to constitute men who resemble us. (Web-based resource)

Comparing the work of Aristotle to that of Descartes, Peter Anstey, Chair of the Department of Early Modern Philosophy at the University of Otago in New Zealand, writes, "Descartes attributed all psychological functions to the immaterial soul, whereas Aristotle located them in the body" (237). Descartes' idea of a soul that exists outside of the body was not to be found in the experience of our ancestors.

Recent years have seen a movement within the medical and scientific world to deconstruct the body-soul duality and return to the approach of a pre-Cartesian era, an era in which the mind and body were understood to be two parts of a whole, conjoined by something other than, as Descartes suggested, the pineal gland in the brain, the gland which he believed was "the principal seat of the soul and the place in which all our thoughts are formed" (Lokhorst unpaginated). Anstey discusses the profound influence of Descartes and the tremendous problem of the Cartesian duality in modern thought:

> Descartes set up the mind/body problem that has so dominated post-Cartesian philosophy of mind. However, contemporary philosophy of mind has finally thrown off its Cartesian shackles and now embraces an approach that is distinctly Aristotelian. (237)

Leaving behind the constraints of a Cartesian approach to the mind/body problem, argues Anstey, has allowed modern philosophy to again locate the *immaterial soul* back in the body (237).

Five years after Anstey's publication, psychiatrist Kenneth S. Kendler echoed the same ideas in a paper published in *The American Journal of Psychiatry* entitled "Toward a Philosophical Structure for Psychiatry" (434). In a section boldly entitled, "Shedding the Chains of Descartes," (434) Kendler argues passionately for the need to reunite the mind and the body into an integrated whole:

> An initial task is to confront one large piece of historical baggage. No philosophical concept has been as widely influential in our field or as potentially pernicious in its effects as that of Cartesian dualism. (Kendler 434)

The separation of mind and body posited by Descartes has led to an artificial separation having no basis in biological reality. In his text *The Continuity of Mind,* University of California Professor of Social Sciences Michael Spivey summarizes the problems inherent in the widespread adoption of a dualistic way of thinking:

> The cognitive and neural sciences have spent more than a few decades relying on the

> mantra of "dividing and conquering the mind" to understand it. Although this tactic was useful at one time and resulted in some important early advances, such advances are fewer and farther between now and definitely less certain. Perhaps it is time to stop dividing and conquering the mind, and instead start uniting and freeing it. (286)

The argument given by Spivey is but a part of a larger movement occurring in modern-day academia to reevaluate and challenge the usefulness of the Cartesian duality as regards the study of the mind/brain/body triad. Kendler laments, " . . . we remain deeply imbedded in the Cartesian framework of seeing the mind and brain as reflecting fundamentally different spheres of reality" (434). The concept of one's concrete outer experience of reality forming the only reality to be valued is a natural consequence of the work of Descartes; however, as the work of Aristotle, Hippocrates, and the more ancient Hindu *M????kya Upanishad* make clear, this separation was not held to be the truth by the vast civilizations that preceded Descartes. Unfortunately, the same Cartesian duality that has shaped the thinking of modern man has elevated concrete waking reality to be the only one and has relegated the dream world to the world of fantasy and phantasm.

Waking consciousness, described as a distinct phase of awareness in the Upanishad, involves a set of profoundly complicated physiological interactions in order to be maintained. For wakefulness to occur, neurotransmitters in the body must be functioning properly. A *neurotransmitter* is a biologically active chemical which acts to transmit information from one neuron to another. A neuron is an individual component of the nervous system. For a nervous system to function properly, neurons must communicate with each other. A neuron can be thought of as being similar to an electrical wire carrying an electrical impulse from one end to the other (see fig. 5.1). When a single electrical impulse travels to the end of one neuron, the signal must jump a gap, the synapse, in order to reach the next neuron and continue to travel on its path. A synapse is the space between the end of one neuron and the beginning of the next. When the impulse reaches the end of one neuron, it activates chemical neurotransmitters on the presynaptic side of the neural junction which then ferry the impulse across the gap. These chemical neurotransmitters get picked up by receptors on the post-synaptic side, causing an electrochemical stimulation to occur in the next neuron, where the entire process begins all over again in subsequent neurons until the electrical impulse reaches the brain.

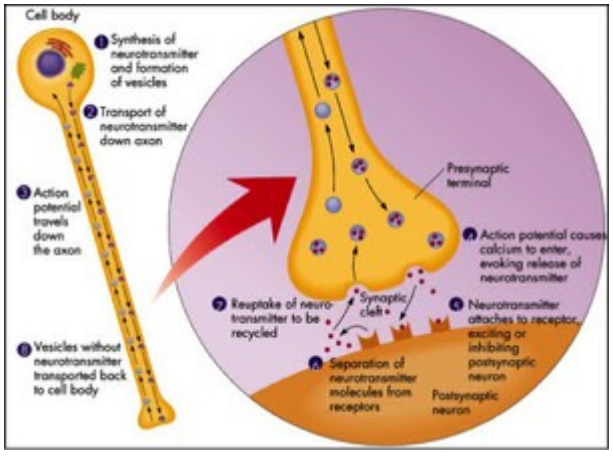

Fig. 5.1 Neuron and synapse:

A neuron carries the electrical impulse from one end to the other, causing the release of neurotransmitters into the synapse.

Source: www.anthropology.net

Though the ancient Upanishad gives sacred significance to the interrelated nature of the states of waking and sleeping, J. Allen Hobson, Professor Emeritus of Harvard University Medical School claims, "This is the most radical assertion of modern dream science. Waking and dreaming are two states of consciousness, with differences that depend on chemistry" (64). It would appear that modern research has caught up to ancient wisdom.

Scientific data supports the observation that waking and sleeping consciousness are two aspects of a conjoined reality. And thus modern-day researchers are working towards illuminating the physiological changes that accompany those times when the body is creating images in the waking or sleeping state. Hobson describes the chemical physiology involved in both the waking and sleeping states:

> Two of the chemical systems necessary to waking consciousness are completely shut off when the brain self-activates in sleep. Without noradrenaline19 and serotonin,20 the dreaming brain cannot do certain things such as direct its thoughts, engage in analytical problem solving, and remember its activities. It is this difference in brain chemistry that probably determines the differences between waking and dreaming consciousness. (162)

Hobson delineates several chemical differences between the waking state and the sleeping state, but is clear that the neurotransmitters noradrenaline and serotonin are involved in both states of awareness. The *Upanishad* supports this understanding by noting that the letter *A,* the symbol for waking consciousness, represents but a part of a whole. The *A* of waking consciousness is understood to be a part of the entirety of consciousness represented by the sacred sound of *AUM*.

The Upanishad continues:

> *The Dreamer, Taijasa, the Inhabitant in Luminous Mind, He is U, the second letter, because of Advance and Centrality : He that knoweth Him for such, advanceth the bounds of his knowledge and riset above difference : nor of his seed is any born that knoweth not the Eternal.*
>
> *The Sleeper, Prajna, the Lord of Wisdom, He is M, the third letter, because of Measure and Finality: he that knoweth Him for such measureth with himself the Universe and becometh the departure into the Eternal.*

Datta and Maclean explain that *Taijisa (U)* and *Prajna* (M) refer to two distinct phases of sleep (775). *Taijasa,* they note, is dream generative sleep and comparable to REM sleep (775). Alternatively, Datta and Maclean associate *Prajna* sleep with Non-REM sleep, or dreamless sleep (775). In spite of what may appear to be a quite natural and often simple thing to do, researchers have shown that sleep itself is physiologically complicated and a "highly evolved global behavior state in the mammalian species" (Datta and Maclean775).

The 2007 edition of the textbook *Neuroscience: Exploring the Brain,* edited by Mark F. Bear, Professor of Neuroscience at Massachusetts Institute of Technology in conjunction

with Brown University professors of Neuroscience Barry W. Connors and Michael A. Paradiso, describes the phasic nature of sleep as it is currently understood:

> Sleep has very distinct phases, or states. Several times during a night, you enter a state called **rapid eye movement sleep**, or **REM sleep**, when your EEG looks more awake than asleep, your body (except for your eye and respiratory muscles) is immobilized, and you conjure up the vivid, detailed illusions we call dreams. The rest of the time you spend in a state called **non-REM sleep**, in which the brain does not usually generate complex dreams. (595)

Patrick McNamara, Director of the Evolutionary Neurobehavior Laboratory at the Boston University School of Medicine, delineates the global engagement of one's bodily physiology during REM sleep:

> REM sleep generation is conceived as a process involving every level of the neuraxis, from the brain stem to the reticular activating system in the midbrain, to the hypothalamus and thalamus, basal forebrain, amygdala, limbic system, and cortex. (150) (see fig. 5.2)

Through the use of highly sophisticated methods and equipment such as positron emission (PET) scans21 (a type of nuclear imaging)and functional magnetic resonance (fMRI22), scientists have demonstrated high levels of electrical activity occurring throughout the extended nervous system during REM. Yet, to an observer, the sleeping body appears inert. McNamara explains:

Approximately every 90 minutes while we sleep, access to external sensory information is blocked, the brain becomes highly activated, particularly networks supporting emotional functions, and the body is essentially paralyzed. (10)

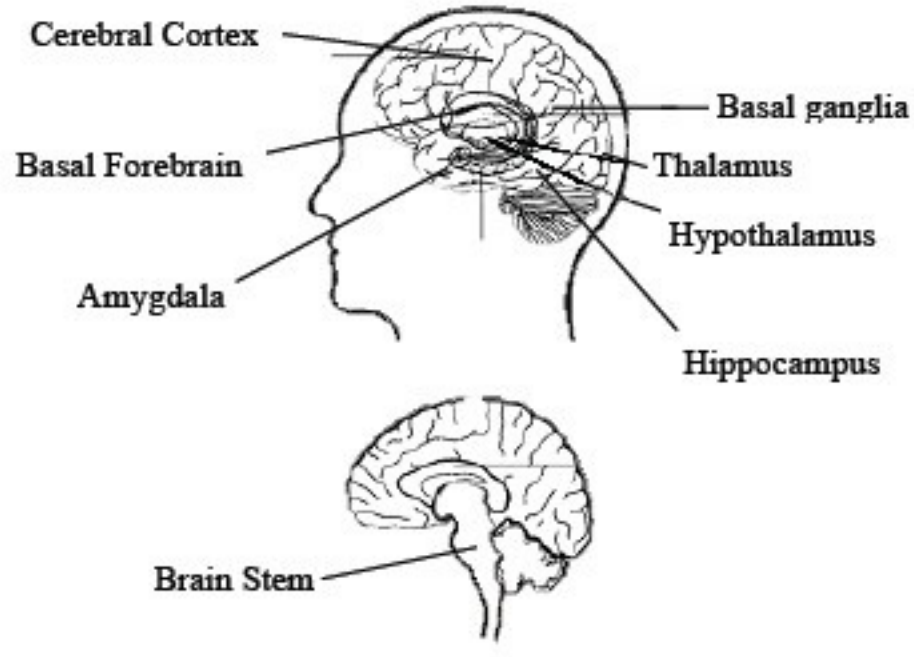

Fig. 5.2. Regions of the brain involved in generating the REM sleep state.

Source: Adapted from "NIMH · Research into Causes and Treatment of Autism Spectrum Disorders."

A particularly accessible explanation of REM and non-REM sleep is given by Stanford University sleep researcher William Dement, co-author of the original 1957 paper on the subject. Dement is paraphrased in the *Neuroscience* text of Bear et al.:

> Dement characterizes non-REM sleep as *an idling brain in a movable body*. In contrast, Dement calls REM sleep *an active, hallucinating brain in a paralyzed body*. Although the REM period accounts for only a small part of our sleep time, it is . . . the state that most excites the brain. The physiology of the REM sleep is also bizarre. The EEG looks almost indistinguishable from that of an active, waking brain, with fast, low-voltage fluctuations. (595)

Other physical findings unique to REM sleep described by McNamara include: wide fluctuations in heart rate (*Evolutionary* 10), significant decline in cardiac output reaching its lowest levels during the last REM period (*Evolutionary* 5), wide fluctuation in respiratory functions (*Evolutionary* 10), high levels of activation in the amygdala (*Evolutionary* 4), and "[f]inally," writes McNamara,

> to add a note of the absurd to the whole affair, the male experiences an erection, regardless of dream content, and the female may experience uterine contractions and even pelvic thrusting - again regardless of dream content. (10)

When one takes into account the extremely taxing cardiac variations which occur during sleep, along with the fact that all death is ultimately the result of cardiac arrest, it is a wonder that more people do not die during REM sleep. Indeed, in 1996 a team of researchers led by Richard L. Verrier at Harvard University Medical School published a study in the journal *Cardiovascular Research* entitled "Sleep, dreams, and sudden death: the case for sleep as an autonomic2 stress test for the heart" (Verrier et al.) exploring just this question. The authors argue:

> Sudden cardiac death, defined as unexpected death within 1 hour of onset of symptoms, occurs during the nocturnal period at an annual rate of 36,000 in the United States. . . . [T]he relative risk for sudden death during REM sleep may be as high as 1.2 times that of wakefulness. [T]he impact of sleep may be underestimated by these statistics, since the final early morning bout of intensely phasic REM sleep could initiate coronary plaque disruption, with death delayed until wakefulness" (181).

Despite the physiologically taxing nature of REM sleep, it appears that a certain percentage of REM sleep, relative to the total amount of sleep in a night, is required for the maintenance of one's health.A study of 185 healthy older adults performed by Mary Amanda Dew, Professor of psychiatry, psychology, epidemiology, and biostatistics at the University of Pittsburgh, found that any significant variations from the normal amounts of REM sleep in individuals was a significant indicator of increased risk for early death from any cause of mortality. In 2003, Dew and her colleagues published the following research in the journal *Psychosomatic* Medicine:

> Individuals with rapid eye movement (REM) sleep percentages in the lowest 15% or highest 15% of the total samples distribution (percentage of REM < 16.1 or >25.7)

> were at 1.71 times greater risk [of death than those with REM sleep levels between 16.1-25.7]. (63)

The precarious nature of REM physiology is entered into every 90 or so minutes throughout the sleep cycle. This fact has led researchers to wonder about the value of REM sleep in humans. McNamara writes:

> The above inventory of REM sleep properties and correlates demonstrates that REM is risky for the health of an organism. Yet, preservation of REM in all terrestrial mammals studied to date suggests that its benefits outweigh its costs, although the benefits have not, as yet, been identified. (*Evolutionary* 9-10).

Recent studies have shown that when a study subject is deprived of sleep, he or she will, not surprisingly, eventually fall asleep to *catch up* on sleep. Yet, as sleep returns, first NREM and then REM dreaming will return as well. Literary history demonstrates that dreams have been a valued part of the human experience for over four thousand years, as have REM and non-REM sleep. Yet, the stressful state of the dream rich state of REM sleep has thus far defied humankind's ability to understand its purpose. How then is one to understand the evolutionary nature of this bodily state? Researcher Michel Jouvet, Emeritus Professor of Experimental Medicine at the University of Lyon, explains:

> [A dream] is something that occupies a fifth of our sleeping time. Dreams are dangerous for an animal because it is paralyzed and its waking threshold is increased. They are *necessary*, for if they are suppressed they tend to return automatically, and the brain tries to make up the lost dream time. Dreams have been conserved throughout evolution, although we still do not know why. (8)

Sleep and dream researchers continue to question and hypothesize why it is that over the course of human evolution this unusual state of being, a time when a sleeping individual is completely unable to move leaving him or her open to attack and predation, has been preserved.

In his book *Dreaming: An Introduction to the Science of Sleep,* Hobson introduces his hypothesis that the *content* of dream images are dictated by the brain *form* that underlies the physiologic states of dreaming. He argues:

> Common sense alone should have dictated that form and content were complementary. The distinction is made in other fields: consider linguistics, where grammar and syntax are complementary; consider poetry, where meter and verse enhance one another; and consider the visual arts, where genre and subject matter interact for strong effect. So, why not the domain of mental life itself? Why not in dreams? Isn't the form of dreams an important contributor to content? (7)

By *form,* Hobson explains, he is referring to the brain activity which accompanies dreaming. He writes, “[E]very form of mental activity has a similar form of brain activity. Therefore, if we detect a dream form, we can seek a corresponding brain form” (33). This theory has been described by Neuropsychologist Patrick McNamara as “some of the finest work accomplished in the study of sleep and dreams” (*Evolutionary* 149). Hobson's theory, known as *the activation-synthesis theory* or the *activation-input source-neuromodulation model,* is commonly referred to as the *AIM* model of dreaming.

The *AIM* model, as delineated by Hobson, focuses attention on the universal aspects of

dreams rather than the particulars in a dream. For example, if one is to dream that one is flying over one's childhood home, Hobson is less interested in associations to one's childhood home than in the act of flying. Hobson's research led him to conclude that the following experiences are the *[c]ardinal cognitive features of dreaming*:

> [L]oss of awareness of self (self-reflective awareness); loss of orientational stability [E.g. the perception that one is flying]; loss of directed thought; reduction in logical reasoning; and last but not least, poor memory both within and after the dream. (6)

Each of these dream forms, argues Hobson, can be explained by observing the neurophysiology of the brain in sleep. Hobson writes,

> Just as we expect (and find) selective activation of brain circuits underlying emotion and related percepts in rapid eye movement (REM) sleep, so we seek (and find) selective *in*activation of brain circuits - and chemicals - underlying memory, directed thought, self-reflective awareness, and logical reasoning. (6)

Among the regions of the brain named earlier, Hobson argues that one finds increased activation in the limbic region of the brain, and more specifically, increased activity in the amygdala during dream sleep. As noted in the previous chapter, the limbic region and the amygdala are the areas of the brain that are highly active during the experience of emotion and instincts. The involvement of this region of the brain in dream formation is evident when one considers the intense emotionality of many recalled dreams. "In REM sleep," explains Hobson, "certain areas of the brain, namely the amygdala in the temporal lobe and the white matter of the base of the forebrain, are turned on. This is a finding on which all brain imaging studies conducted to date agree" (145).

While Hobson's theory that dreaming is an epiphenomenon of REM sleep is held in high regard by many, Mark Solms, member of the Academic Department of Neurosurgery at the Royal London School of Medicine, disagrees with Hobson's assessment. Publishing in 2000 in the journal *Behavioral and Brain Sciences*, Solms titles his article "Dreaming and REM sleep are controlled by different brain mechanisms" (793) and argues,

> [A]lthough there is an important link between REM sleep and dreaming, they are in fact doubly dissociable states. That is, REM can occur without dreaming and dreaming can occur without REM. The evidence reviewed here also suggests that these two states are controlled by different brain mechanisms. (793)

Solms disagrees with Hobson regarding the exact mechanism of brain function which generates dreaming, but both researchers agree that dreaming is inextricably linked to brain function.

Modern science has now proven what was stated almost 4000 years ago in the wisdom of the ancient Hindu *M????kya Upanishad.* Concrete scientific evidence supports the understanding that the consciousness of waking/sleeping/ and dreaming are all a part of one physiologic continuum. Although the actual mechanisms involved in the production of dream images has yet to be delineated, it has been noted that many dreams, from prehistory to the present day, are filled with images of social interactions with other people. Our dreaming self is able to navigate sidewalks, drive on roads, walk or drive around in our paths, and avoid bumping into other people, and somehow in our dreams we are able to discern the friendly or aggressive intentions of our inner dream figures.

The notion that one's dream world allows one to practice social interaction is not so far afield. Our dreaming mind perceives not only self and other but the intent of the dream "other" as well (e.g. are they friendly or aggressive? Are they walking to the right or to the left?). Our dreams are filled with rehearsals of social interaction, and as such human beings are constantly practicing social engagement in the night world.

Examples from antiquity of dreams in which the dreamer intuits something about the dream other are found in many sources. For the purpose of illustration, two dreams dreamt by two young girls, Thaues and Taous, living in Memphis (Egypt) in the second century BC are illustrated here. The girls were the twin daughters of a friend known to the son of a Macedonian military man named Ptolemaios:

* Dream 1: "I saw Apollonios [Ptolemaios' brother] coming towards me. He says, "A good greeting to you, Nektembes" (Lewis 50).

* Dream 2, reported by the same dreamer: "I saw Ptolemaios, with a knife in his hand, walking in the street. He knocks at a door and it is opened. He tussles, trying to strike him. I say, 'Don't do it or you will destroy your slave. A master doesn't destroy his own slave'" (Lewis 50).

In the first of these two, the dreamer discerns the *Other* to have friendly intention. Whereas in the second, the dreamer is aware that the dream *Other* intends harm.

Compare the above two dream fragments with those of two men considered to be the fathers of modern psychotherapy: Sigmund Freud and Carl Jung. The first is a dream reported by Freud which describes a friendly interaction between the dreaming Freud and an unknown dream figure:

> I want to put on an overcoat; but the first I try on is too long. I take it off, and am somewhat astonished to find it is lined with fur. A second coat has a long strip of cloth with Turkish design sewn into it. A stranger with a long face and a short, pointed beard comes up and prevents me from putting it on, declaring that it belongs to him. I now show him that it is covered all over with Turkish embroideries. He asks: How do the Turkish (drawings, strips of cloth...) concern you? But we soon become quite friendly. (Freud and Brill 106)

In this dream fragment, it is clear that Freud is describing a friendly interaction along between himself and another. However, in the following fragment, Freud's experience in the dream is one of aggression:

> I belong to the garrison, perhaps as a volunteer naval officer. We fear the arrival of enemy warships, for we are in a state of war. Herr P. intends to leave the castle; he gives me instructions as to what must be done if what we fear should come to pass. His sick wife and his children are in the threatened castle. As soon as the bombardment begins, the large hall is to be cleared. (326)

As Freud examines this dream, he writes of the feeling that he experienced while dreaming: "[W]hen I see the warships, I am *frightened,* and experience all the sensations of fright in my sleep" (327). The dreams of the Egyptian twins and the dreams of Freud almost two millennia later all demonstrate feelings of affection as well as feelings of fear occurring in personal dreams. This experience of fear secondary to dream events leads one to question whether the human body responds differently to events occurring in the

waking or dreaming state. The power of the emotional responses to dream events raises the possibility that the body does not necessarily discern between the two.

Of the thirty-one dreams reported by C. G. Jung in his autobiographical work *Memories, Dreams, Reflections,* there are several dreams of aggression. One example is excerpted below:

> I stood before a wooden bridge leading over the water to a dark, horseshoe-shaped portal, which was open. Eager to see the citadel from the inside also, I stepped out on the bridge. When I was about halfway across it, a handsome dark Arab of aristocratic, almost royal bearing came toward me from the gate. I knew that this youth in the white burnoose was the resident prince of the citadel. When he came up to me, he attacked me and tried to knock me down. We wrestled. In the struggle we crashed against the railing; it gave way and both of us fell into the moat, where he tried to push my head under water to drown me. (243)

A counterpoint to the aggressive interaction in the above dream is the following dream, also recorded by Jung in *Memories, Dreams, Reflections:*

> I found myself in a magnificent Italian loggia with pillars, a marble floor, and a marble balustrade. I was sitting on a gold Renaissance chair; in front of me was a table of rare beauty. It was made of green stone, like emerald. There I sat, looking out into the distance, for the loggia was set high up on the tower of a castle. My children were sitting at the table too.
>
> Suddenly, a white bird descended, a small sea gull or a dove. Gracefully it came to rest on the table, and I signed to the children to be still so that they would not frighten away the pretty white bird. Immediately, the dove was transformed into a little girl, about eight years of age, with golden blond hair. She ran off with the children and played with them among the colonnades of the castle.
>
> I remained lost in thought, musing about what I had just experienced. The little girl returned and tenderly placed her arms around my neck. (172)

Jung expresses feelings of friendliness and tenderness when describing the little girl as she comes back to "tenderly place her arms around my neck" (172).

Those who explore dreams from the frame of psychological interpretation may choose to explore associations to the images presented to the dreamer in any particular dream. For example, Freud describes his feeling of fear when he sees warships in his dream and Jung describes his tenderness for the little girl in his dream. Marie-Louise von Franz discusses the way in which psychologists explore dreams:

> One can understand every dream as a drama in which we ourselves are *everything*, that is, the author, director, actors, and prompter, as well as the spectators. If one tries to understand a dream in this way, the result is a startling realization for the dreamer of what is happening in him psychically, "behind his back," so to speak. (*Dreams* 3-4)

Viewed through a psychologist's lens, images in dreams are understood to be deeply personal, possibly archetypal, and most importantly, they are understood to be unique imagistic metaphors that are quite particular to the dreamer. While this method of

experiential and anecdotal method of dream interpretation has been validated over four millennia, in the middle 1960s, an alternate means of evaluating dream content emerged.

In 1966, Chairman of the Department of Psychology at Western Reserve University (now Case Western Reserve University) Calvin S. Hall joined Robert L Van de Castle, Director of the Sleep and Dream Research Laboratory at the University of Virginia Medical Center. Together they developed a viable and quantitative system for studying dreams. Their method, a type of content analysis, was created from dream reports and was to be used for evaluating and quantifying dream events. "Content analysis," explains Hall and Van de Castle in their book, *The Content Analysis of Dreams,* "converts verbal or other symbolic material into numbers in order that statistical operations may be performed on such material" (1). Dream researcher and University of California Professor G. William Domhoff further describes this method in his book entitled *Finding Meaning in Dreams: A Quantitative Approach,* as one which "encompasses the many different elements appearing in dreams" (2). Domhoff explains:

> In the case of the Hall/Van de Castle system, these categories include characters, social interactions, settings, the activities engaged in by the dreamer and other dream characters, and a wide range of objects. There are also coding categories for emotions, temporal references, successes and failures, good fortunes and misfortunes, and many other aspects of dream content. (2)

Using the Hall/Van de Castle system, Domhoff demonstrates the system by comparing and contrasting the twenty-eight dreams reported by Freud in *Interpretation of Dreams* and *On Dreams* with the thirty-one dreams reported by Jung in his autobiographical work *Memories, Dreams, Reflections.* Domhoff quantified the number of acts of aggression in dreams relative to the total number of characters in the dream (A/C index) and the number of friendly interactions in a dream relative to the total number of characters in the dream (F/C index) experienced by each man. Domhoff concludes,

> There are 16 aggressive and 16 friendly interactions in Freud's dream series; Jung's has 14 aggressions and 11 friendly interactions. Their A/C and F/C codes are much the same, and they are in close accord with our findings for American males between the ages of 30 and 80. (160)

The Hall/Van de Castle norms are based on five dream reports from each of 100 men and 100 women at Case Western Reserve University and Baldwin-Wallace College in Cleveland Ohio from 1947 to1950. (Domhoff 4). Since that time, the Hall/Van de Castle system has been used to create norms for different populations, allowing Domhoff to reach the above conclusion: the dreams reported by Freud and Jung in the aforementioned publications were in accordance with the expected norms for men between the ages of 30 and 80.

Patrick McNamara, working at Boston University School of Medicine in association with researchers from Harvard University Medical School, sought to study brain activation patterns during dreams of aggressive interactions versus dreams reported as being nonaggressive. In a paper entitled "A 'Jekyll and Hyde' Within" published in 2005 in the journal *Psychological Science*, McNamara et al. hypothesized

> that representations of social interactions in REM and non-REM (NREM) dreams

> would reflect differing regional brain activations patterns associated with the two sleep states, and that levels of aggressive interactions would be higher in REM than in NREM dreams. (130)

Indeed, their research demonstrated their hypothesis to be correct. They concluded:

> [P]rocessing of, or simulations about, selected social interactions is preferentially performed while "off-line" during the dream state, with the REM state specializing in simulation of aggressive interactions and the NREM state specializing in simulation of friendly interactions. (130)

The findings of McNamara et al. support what has come to be known as the *Threat Simulation Theory.* Writing in 2000, Antti Revonsuo, Professor of Cognitive Science at the University of Skövde, Sweden, and Director of the Consciousness Research Group in the Center for Cognitive Neuroscience at the University of Turku, Finland, published an article in the journal *Behavioral and Brain Sciences*, in which he hypothesized dreams to be one way that individuals rehearse for dangerous situations which one might encounter in the course of one's waking life. Revonsuo argued, "The biologic function of dreaming is to simulate threatening events, and to rehearse threat perception and threat avoidance" (877). His theory has been tested and supported by some (Zadra et al.; Bradshaw et al.) and argued against by others (Malcolm-Smith et al.). Revonsuo's hypothesis, the *Threat Stimulation Theory*, has engendered a great deal of scientific debate in the academic literature.

Modern research has now fully demonstrated the integral relationship between dream states and the state of the body in sleep. Hobson claims, "The science of dreaming is inextricably linked to the science of sleep. The science of sleep is inextricably linked to neurobiology. Thus, the science of dreaming is inextricably linked to neurobiology" (161). And in his chapter entitled "Methods and Measures for the Study of Dream Content," published in 2000 in *Principles and Practices of Sleep Medicine,* Domhoff concludes:

> Three general findings emerged from the systematic study of dream content in the 20th century. First, the dream reports of groups of people from around the world are more similar than they are different on such indicators as the percentage of male and female characters, the higher ratio of aggression to friendliness, the higher ratio of misfortune to good fortune, and the higher ratio of negative emotions to positive emotions. Second, there are impressive consistencies in long dream series from individuals. Third, there are intriguing individual differences in any group of dreamers. (470)

It is no longer merely speculation or conjecture to place dream generativity squarely in the domain of human physiology. Regardless of one's spiritual beliefs, clearly there is an intimate physiological connection between one's body, one's sleep, and one's dreams. The remainder of this chapter will explore the dream images which occur at the end of life and will seek to demonstrate that dream images which emerge from one living at the end of life are unique relative to the dreamt images reported over the course of one's life trajectory.

Interpretive Studies of Dreams of the Dying

Myriad ways exist in which individuals travel through life to eventually reach the active time of dying. Regardless of all of the events contained in one's life, it is a universal truth that the life of the human body ceases when the heart stops beating. Oneiromancers from antiquity believed that certain dream images, when dreamt by one who is ill, prophesied the end of one's life. This section will focus on dream images and content believed to portend the end of life in two different collections of dreams: those described by second century AD Greek oneiromancer Artemidorus Daldianus in his work *The Interpretation of Dreams: Oneirocritica* and those included in the work entitled *On Dreams & Death* compiled by prominent twentieth-century Jungian analyst Dr. Marie-Louise von Franz. Given the physiologically unique state of the dying body, I argue that the dreams dreamt by one who is dying are necessarily unique.

End of life dreams presented earlier in this work include Enkidu's deathbed dream:

> Anu, Enlil, Ea, and the Sun-god of heaven [were seated in council].
>
> And Anu spoke before Enlil,
>
> "Because they killed the Bull of Heaven [and because] they have killed Huwawa who [made] the mountains thick with cedars" - so said Anu - "between them [one must die]!" And Enlil said "Enkidu shall die, but Gilgamesh shall not die!" Then the Sun God of heaven responded to heroic Enlil, Didn't they kill them (!) at my (!) behest - the Bull of Heaven and Huwawa? And should innocent Enkidu now die?" Enlil became angry with the Sun-god of Heaven, "Why do you accompany them daily like a comrade? (Foster 163)

Artemidorus, the most prolific of the oneiromancers of antiquity, defines the above sort of dream as *theorematic.* He explains, "Theorematic dreams are those which come true just as they are seen . . . and come true on the spot and at once" (186). Allegorical dreams are defined by Artemidorus as "those which disclose their meaning through riddles" (186). "Allegorical dreams," he claims, "inevitably come true after a certain lapse of time of either a long or short duration [or in extreme cases, in one day (his insert)]" (Foster 186) An example of an allegorical dream presented earlier in this dissertation is the dream of Isaac that portended the death of Abraham. Both Abraham's dream and the dream of Enkidu reflect two deeply embedded societal beliefs. First, that in antiquity, dreams were believed to be god given. Secondly, the ancients believed in anthropomorphic god figures. The dream of Isaac also demonstrates the ancient belief that one could dream a portent for another:

> Behold, my lord, I saw in this night the sun and the moon above my head, and their rays encircling me and illuminating the way for me. And while I was thus seeing these things and rejoicing, I saw the heaven opened, and I saw a glorious man coming down out of heaven, shining more than the sun. And that sun-like man came and took the sun from my head; and he went up into the heavens from whence he had come. And I grieved greatly that he had taken the sun from me. After a moment, as I was still grieving and anxious, I saw that glorious man coming out of heaven a second time; and he also took from me, from my head, the moon. I wept greatly and implored that glorious man and said, "No, lord, do not take my glory from me. If you must take the sun from me, at least leave the moon over me." But he said: "Let me take them up into the upper kingdom, because he wants them there." And he took them from me;

> but he allowed their rays (to stay) upon me. (RecLng 7:2-7:7)

According to the classifications of dreams set out by Artemidorus in *The Interpretation of Dreams*, this dream would be considered to be allegorical in that it required the interpretive skills of the Angel Michael for Abraham and his family to understand the prophetic nature of the images.

Modern-day end of life dreamers report experiences similar to those of Abraham in dreams at the end of life. The following dream of a direct encounter with God was reported by a patient to Mary Anne Sanders, a specialist working in care giving those living at the end of life. In her book, *Nearing Death Awareness,* Sanders recounts the dream:

> She dreamed she was on a boat on the river of death, she just wanted to get to the shore and die. These large arms drew her out of the boat and set her on the shore. She saw the brightest sunshine she had ever seen and said that God sang to her all night and put her back in bed for three nights. (65)

A similar experience was recorded in a dream reported to Mark Pelgrin by a dying woman:

> I saw vividly a number of very serious men, as though in a solemn ritual, waiting for me to come along on a stretcher on an open veranda that faced a courtyard. They were dressed in bright colors, some like silken jockey clothes. All were waiting for some work to do in the courtyard, some very important dignifying work on me. There was a vague impression of an altar there to which I was taken to be sacrificed to the gods, to be worked on by the powers within in some healing way. (qtd. in von Franz, *Dreams* 95)

Regardless of the particular culture from which this dreamer emerges, an altar is a place of ritual sacrifice and as such is a direct referent to the gods.

Another end of life dream in which the referent to the gods is allegorical rather than direct is a dream reported to Marie-Louise von Franz by a middle-aged man who was dying of cancer:

> He saw a green, half-high, not-yet-ripe wheat field. A herd of cattle had broken into the field and trampled down and destroyed everything in it. Then a voice from above called out: “Everything seems to be destroyed, but from the roots under the earth the wheat will grow again.” (*On Dreams* 10)

Von Franz explains, “An image of vegetation very often appears in the dreams of people who are about to die” (*On Dreams* 10). “On Regimen,” a section of *The Hippocratic Corpus*, a work attributed to Hippocrates and dating from the fourth century BC, includes a short piece of writing entitled “Dreams.” In his treatise, Hippocrates discusses the meanings of dream images of vegetation and applies them to physical diagnosis:

> The following are some of the signs that foretell health; to see clearly and to hear distinctly things on earth, to walk safely and to run safely and swiftly without fear, to see the earth smooth and well tilled and trees flourishing, laden with fruit and well kept; to see rivers flowing normally with water clear and neither in flood nor with their flow lessened, and springs and wells similarly. All these things indicate the

> subject's health, and that the body, its circulation, the food ingested, and the excreta, are normal. (256)

Hippocrates also warns, “Anything seen which is the contrary, however, indicates something wrong in the body (256). Regarding land and vegetation seen in a dream, the medical text explains:

> Rough land indicates impurity in the flesh; [a regimen of] longer walks after exercise should be ordered. Trees that do not bear fruit indicate destruction of the human semen; if trees are losing their leaves the cause of the trouble is wet and cold; if they are flourishing but barren, heat and dryness. In the one case, the regimen should aim at warming and drying; in the other, at cooling and moistening. (257)

The modern American may read these instructions and take them as nothing more than folly, yet one must recognize that the works of Hippocrates and his followers have been foundational in the development of modern westernized medicine. Lloyd describes the role of Hippocrates in the development of modern medicine:

> Until comparatively recently in the history of Western medical thought, his [Hippocrates] views - that is, the views of the works that passed for his - were accepted as authoritative on all kinds of medical problems, and medical students read their Hippocrates not out of piety but as an essential part of their training as doctors. (9)

For Hippocrates and others, gathering information on the dreams of one’s patients was understood to be an integral and important part of one’s diagnostic decision making.

While Hippocrates discussed vegetation in terms of generalizations, such as *trees* rather than a more specific species of tree or *plants* as a category rather than individual types of plants, Artemidorus was more specific in his writing regarding individual trees and plants. In the above dream, wheat is mentioned quite specifically by the dreamer and for Artemidorus the image of wheat has particular significance. He reports two dreams in which the symbol of wheat growing in abnormal ways or places portended death:

> A woman dreamt that stalks of wheat sprouted from her breast and that they bent back and went down into her vagina. Through some mishap, she unwittingly had sexual relations with her own child. Afterwards she committed suicide and died a wretched death. For the stalks of wheat signified her son. The descent into the vagina indicated sexual intercourse. The seeds that sprung forth from her body signified death awaited her, since seeds spring forth from the earth, not living bodies. (244)

> Someone dreamt that stalks of wheat had sprouted up from his chest and, then, that a man came up to him and pulled out the stalks of wheat, since they did not become him. The dreamer had two sons at the time and they died as the result of a tragic accident. For a band of robbers attacked them while they were living in the country and killed them. For the stalks of wheat signified his sons [for it was a male seed]: their being pulled out signified death to his sons. (249)

To further explicate the dream of the patient of von Franz, I turn to the symbol of cattle. Divine figures were so much a part of the ancient world in which Artemidorus lived, explains Associate Professor of Religion, Syracuse University, Patricia Cox Miller, that “[a] large section of Book 2 of his [Artemidorus's] *Oneirocritica* reports on the

appearances of gods in dreams" (29). Miller continues, "His rule of thumb for the interpretation of these dreams is that 'statues of the gods have the same meaning as the gods themselves'" (29). The *cow*, explains J. C. Cooper in his book *An Illustrated Encyclopedia of Traditional Symbols,* is the symbol of the Great Mother. In Egyptian cultures, the cow was the symbol of Hathor, the Great Mother of Egypt (Cooper 44). In Greece, where Artemidorus was writing, the cow was "a form of Hera and Io" (Cooper 44). Artemidorus explains the importance of knowing such symbolic meanings: "You must also keep in mind that all animals that are sacred to certain gods signify the gods themselves" (216).

An allegorical interpretation of the dream which includes both trampled wheat and a herd of cattle might be interpreted through the work of von Franz and Artemidorus as follows: wheat being trampled while in the middle of the growth cycle by an animal sacred to the Great Mother becomes an imagistic metaphor of the middle-aged man whose life is cut short through the natural behavior of a herd of animals, the animals representing the Mother Goddess.

Another example of a dream in which a dying individual has perceived a direct sensory experience of the divine in a dream comes from Sally, the woman who is living with cancer at the end of her life and is the subject of Jungian analyst Jane Wheelwright's *Death of a Woman:* "*An all-encompassing, big voice, which she knew was the voice of God, said, 'Let us nourish the arid soil'"* (194). From Enkidu and Isaac to twentieth-century clinicians Sanders and von Franz, dreams which include imagistic representations of the gods are interpreted as being of heightened significance. Other modern dream reports reinforce the idea that god figures and sacred places present themselves in dreams of the dying.

Another dream reported to Wheelwright by Sally includes images of the sacred structure of a ziggurat:

> *I came upon a Sumerian tower with great ramps zigzagging to the top. It was also Southern California State College, overlooking the University of Southern California. I had to climb to the top; it was a horrifying ordeal. When I got there I looked below and throughout the city I saw buildings from the Sumerian, Romanesque, Gothic, and ancient Indian eras. There was a large elegant book lying open before me. It was handsomely illustrated with architectural details of these buildings, of their friezes and sculptures. I awakened terrorized by the height of the tower. (28)*

There is no direct mention of the figure of a god in this dream; however, the image of the sacred structure of a ziggurat infers the presence of the sacred. Wheelwright explains:

> The Sumerian ziggurat, with its great ramps zigzagging to the top (like a mountain, a three-sided pyramid, a tower, a tree, Jacob's ladder) is an ancient and basic architectural symbol, of the deepest and most complex meaning. It is thought to have originated in the neolithic, possibly paleolithic, matriarchal era in Sumer. In ancient times religion was the heart and soul of society, and each individual was contained within it. The tower, common to many civilizations, was considered the center of the world, as it was known then. At the top of the ziggurat the connubial ritual of god and goddess was enacted. (28)

A more modern dream report which references Jerusalem, a site known for its sacred history from the earliest times in the Abrahamic faith traditions, was told to Jill Fischer, Clinical Specialist in Psychiatric Nursing and Diploma Candidate at the C. G. Jung Institute, Boston, by a man living with cancer at the end of his life:

> I wander into a dry, dusty town and see a man beckoning. He's sitting in front of a restaurant, a total stranger. Fearing the unknown, I decide to join him. Neither of us talks but I notice that I become increasingly more relaxed as my lungs fill with fresh air. The atmosphere reminds me of Jerusalem, a place I know. . . a city where I once lived and the site where my former wife died. (Unpublished case study, 9)

Many examples of symbolic referents to religious images are present in the end of life dream series presented in the writing of Wheelwright, Bosnak, Edinger, and von Franz. What is unclear is how often these images appear in the dreams of those who are well and how one might understand such images. In the Foreward to von Franz's book *On Dreams & Death,* Emmanuel Kennedy-Xipolitas cautions against definitive interpretations of dream symbols when dealing with something as mysterious as death:

> Whenever people are confronted with something mysterious and unknown such as death, the unconscious produces *symbolic* representations. These images are unconscious perceptions. Conclusions about the interpretation of such symbolic representations are hypothetical and should not be considered ultimate or absolute truths. (vii)

An important point is made by Kennedy-Xipolitas and yet, the anecdotal evidence points to the repetition of certain images in the dreams of those living at the end of life. One cannot interpret with any surety the meanings of such symbols. What one can do is observe them, note them, and marvel at the constancy with which the human body appears to produce them. The astute student must proceed with a cautious skepticism when studying the recurring dream images which appear to prophesy the end of life.

According to the Greek *Komarios text,* a first-century AD text described by von Franz as "one of the oldest texts of Graeco-Egyptian alchemy" (*Dreams* 27), "the *womb* of fire gave birth to the 'statue,' which is the new form of the philosopher's stone, or in our language of the Self" ("Archetypes" 14). Von Franz devotes an entire chapter in her book *On Dreams & Death* to the theme of passage through fire or water (78), and it appears that from the earliest times in history a dream of fire has been interpreted as a portent death or disaster. Von Franz cites the following example culled from a dream of one of her analysands shortly before he died:

> He saw wood which was green, not yet autumnal. A fire was raging which destroyed it completely. It was a terrible sight. Afterwards, he was walking through the burnt up area. Everything was turned into black coal and ashes, but in the midst lay a big round boulder of red stone. It showed no trace of fire, and the dreamer thought: That one, the fire has not touched or even blackened! *(*"Archetypes*"* 6)

Another dream of an analysand who was nearing the end of life is reported by von Franz as having included the fire of a funeral pyre followed by a fortuitous meeting:

> He was going to a funeral of some man who had been indifferent to him; he was just walking with a lot of people in a funeral cortege. In a little square place in the town,

> where there was a green lawn, the cortege stopped. On the lawn there was a pyre and the bearers laid the coffin on it and set fire to it. The dreamer watched it without any special feelings. When the flames sprang up, the lid of the coffin opened and fell off. Out of the coffin sprang a most beautiful woman; she opened her arms and went toward the dreamer. He too opened his arms to embrace her and woke up with a feeling of indescribable bliss. (14)

Placing the image of fire squarely in Egyptian mythology, von Franz explains, "In the mythology of the Egyptians, the dead person has to pass through a lake of fire to reach his new life beyond" (14). The Egyptian Dream Book is described by Distinguished Professor of Classics at City University of New York Naphtali Lewis as "the oldest extant work on the interpretation of dreams, may date from as early as ca. 2000 BC" (Lewis 7). This work includes the following entry regarding dreaming of fire: "seeing a burning fire, BAD; the removal of his son or his brother" (14). In contrast, fourth century BC Greek philosopher Aristotle wrote, "Dreamers think they are walking through fire and feel very hot, when some parts of the body are slightly warm - and when they wake up the true state of affairs becomes apparent to them" (qtd. in Lewis 24). The distinction between a dream image and the state of the body blurs when Aristotle writes of those dream images which create a sensory experience in the dreamer. Artemidorus echoes the sentiment of Aristotle in Book 1 of the *Oneirocritica*: "You can see that some things pertain only to the body, some things pertain only to the mind and some are common to both body and mind" (22-23).

One is led to question if the descriptions of the conjoined experience of the dream image/ sleeping body dyad prefigure the scientific discoveries made by modern day dream researchers, as described previously. In other words, twenty-first-century researchers describe an activation of the nervous system that occurs during REM sleep. It is one's nervous system that allows one to experience warmth. According to Artemidorus and Aristotle, Hobson, and Revonsuo, the dreaming mind creates images of a bodily state. It is quite extraordinary to note that for as many as four thousand years, oneiromancers, philosophers, and scientists have all noted the same thing: dream images are spontaneous productions of the unconscious that reflect the state of the body. Not only does the unconscious reflect the state of the body, but, as Fromm suggests, perhaps the dreaming body is reflecting the unconscious.

One wonders if the Cartesian duality has truly outlived its usefulness when discussing end of life experiences. Thus far, the evidence in this chapter points towards the interwoven unity of the dreaming body and the dreaming mind. Modern language reflects a post-Cartesian approach to the body/mind dyad and maintains an artificial separation between these two aspects of the human experience. I argue that the two are actually one. There is no body/mind dyad; rather, there exists a body/mind monad. The image in the previous dream reported by von Franz ("Archetypes" 14) in which the woman emerges from the coffin and embraces the dreamer can be understood to reflect this point. Von Franz explains this in terms of a divine marriage, or *heirosgamos*. "[T]he Heirosgamos," explains von Franz, "is often described as a sexual orgy in which the soul of the dead unites with all the goddesses" ("Archetypes" 16). While the image of achieving sexual unity with a goddess is an appealing one, the dream image of being embraced by the dead is an image that repeated often enough in the dreams of the dying to be included in dream

books of antiquity. Artemidorus writes, “It is bad for a sick man to dream that he is kissing the dead, since it portends his death” (90). The Egyptian Dream Book offers alternatives depending on who is kissing who: “If a man kisses a dead person, he will stand up (in court) against his adversary. [BUT] If a dead person kisses a man, one near (?) to him will die (?). . .” (qtd. in Lewis 16). Such conflicting portents are discussed at length in chapter 4 of the *Oneirocritica* of Artemidorus as he strives to teach his art to his son:

> [C]ommon customs differ greatly from individual ones. If anyone has not learned this, he will be deceived by them. . . . It is profitable - indeed, not only profitable but necessary for the dreamer as well as for the person who is interpreting the dream that the dream interpreter know the dreamer's identity, occupation, birth, financial status, state of health, and age. (31-32)

Artemidorus makes the important point that generalizations about dreams and their imagery may well lead the interpreter astray unless one is familiar with the dreamer. The astute researcher must read the work of modern-day dream interpreters with a critical eye as to who is speaking and who is interpreting. Von Franz and others cited above are highly regarded in their field and understood to be trustworthy sources for such interpretation.

Bosnak's Christopher was a homosexual man. Just prior to working with Bosnak and learning of his terminal diagnosis of AIDS, Christopher moved from his home state of Texas to Boston. What follows is his fourth dream during his work in analysis:

> *Dream of walking up a hill in some sort of progression. I later realize that it is a wedding and I am the groom. It seems that there is a problem with being one rose short for the attendants, and to give her one of the flowers I brought would be odd because they are different from the roses - like a real long cockscomb. (Bosnak 13)*

However dreaming of flowers, and more particularly of roses is a wedding motif that Artemidorus discusses: “Garlands made of roses, if they are in season, indicate good luck for all except those who are sick or trying to conceal themselves. They symbolize death for the sick because they wither quickly” (77). And yet, from the beginning of Christopher's relationship with Bosnak, the former had spoken of his love of roses. While one could readily conjecture that a homosexual man living in a predominantly conservative Christian region of the country could be imaged as *concealing oneself and withering quickly,* one must also consider Christopher's love of roses, which he had expressed early on in their relationship and long before he knew he was HIV positive (5). Indeed, the first comment Christopher made when he and Bosnak met face to face had to do with the roses growing outside of Bosnak's office (5). Cooper explains that the symbol of the rose “is a highly complex symbol; it is ambivalent as both heavenly perfection and earthly passion; the flower is both Time and Eternity, life and death” (“Rose” 141).

In his essay “On the Nature of Dreams,” Jung acknowledges the difficulties inherent in dream interpretation:

> So difficult is it to understand a dream that for a long time I have made it a rule, when someone tells me a dream and asks for my opinion, to say first of all to myself: “I have no idea what this dream means.” After that I can begin to examine the dream.

(*CW* 8:533)

Countless examples exist of those who are dying experiencing dreams in which a creature or a dead person comes to accompany the dying individual on his or her journey. Examples include this modern-day dream of a middle-aged man who was dying from cancer whose companion was a robot-like creature:

> Suddenly there is some sort of character - a little like a yellow round robot - who was the embodiment of the cancer/patch/area - who wanted to lead me somewhere. It was like being in one of the T stations in Boston where they were remodeling and there was construction going on - and it wanted to lead me to the edge of a walkway where there was no rail or wall, and it wanted me to follow it down a tube - a plastic tube - large enough to slide down like a construction site rubbish-dumping tube - or a child's slide tube - but I didn't want to go and I refused because I wasn't sure where it was going and I didn't trust it, and I thought it might be a death-slide into some sort of deadly place of its devising. It all felt strange. (Fischer, Unpublished Case Study)

Another example of a guide figure coming to assist the patient comes from the published work of Michael Kearney:

> In the middle of the night James had woken to find a man standing by his hospital bed. The man had introduced himself as Professor John Kelly Reeves, who told him that because he did not have very long to live, he wanted to pass on some important information to James. He brought James to Newgrange, a pre-historic burial chamber situated north of Dublin in County Meath. He led him into the heart of the tomb, so that James's back rested on a stone slab which is touched by the first rays of sun each midwinter's day. The professor then led James forward out of the burial chamber, told him to turn left for a certain distance, then left again for another short distance, and finally left again. At this point James was instructed to start digging. "And you know, I discovered there the most wonderful thing. Buried under Newgrange I found this other pre-ancient city. I could see all the circular outline of the houses and the lines of the streets of this marvelous city as it spread out toward Dundalk. This is the treasure that I wanted to share with my sons. (134)

Each of these complicated dreams include many symbols, and in the next section each dream will be evaluated for content. The purpose of including these dreams here is to highlight the image of a guide figure who has come to assist the dying in some sort of journey. A particularly poignant dream image from Bosnak's Christopher combines elements of a journey with the image of water, a guide figure, and a biblical referent. "There's a woman holding an infant on the bank of the river. I'm floating down the river and she pulls me out. Suddenly I am the baby in her arms" (33). There is striking imagistic similarity here to the biblical Moses in the cradle being rescued from the water by Pharaoh's daughter (Exodus 2:1-10).

Examples cited above are but a few of the themes which have been noted to appear in the dream images of the dying for as many as four thousand years. Compendiums compiled by oneiromancers of old suggest the possibility that when certain images appear in the dreams of one who is ill, the dreamer or someone close to the dreamer will die. Dream images from aforementioned historical records which were believed to portend death to those who were ill include:

1. Vegetation being cut down, particularly that of wheat.

2. Experience of fire in the environment in which the dreamer finds himself.

3. Representations of God or god figures, whether in voice, statue, or allusion as well as other themes from religious traditions such as “Sarah” or such as the allusion to the biblical Moses, assisting or causing destruction to the dreamer or to an allegory of the dreamer, such as the growing wheat field being trampled or healthy trees in the forest being cut down.

4. Image of a voyage, particularly on a boat or in the water.

5. Image of the dead coming to help the dying accomplish some task.

The method of studying dreams based on images *seen* in dreams and their symbolic interpretations appears to have been validated over the long course of history. Yet, there are two inherent problems with this method. First, the ambiguity of symbols discussed above. Second, and a more general problem, is the lack of healthy control groups with which to compare these suggested themes. In other words, it is unclear from the data if the dream themes identified by von Franz and others repeat in the dreams of healthy individuals as well as in the dreams of dying individuals.

The work of Calvin Hall, founder of the Institute of Dream Research, in conjunction with University of California professor G. William Domhoff and clinical psychologist and colleague Dr. Robert Van de Castle, addresses this issue. In 1966, these researchers developed an alternative method to explore dreams in which a content analysis based on the structure of dreams could be performed. Using the standardized Hall-Van de Castle Scales, one is able to “classify dream content so that it could be evaluated in an objective and quantitative fashion” (Van de Castle 296). The scale, explains Van de Castle, “consists of sixteen 'empirical' scales and three 'theoretical' scales, derived from psychoanalytic theory” (300): (1) setting, (2) characters, (3) tangible objects, (4) three different groupings of social interactions (aggression, friendliness, and sex) between dream characters, (5) types of activities engaged in by the dreamer and other dream figures, (6) misfortunes or good fortune as experienced in the dream, (7) emotions felt by the dreamer and expressed in the dream, and (8) any descriptive terms used by the dreamer when recounting the dream (300-01). Using this method of dream analysis, I was able to explore other aspects of end of life dreams. What follows is an example of the Hall-Van de Castle coding system as applied to a collection of dreams reported by thirty individuals living at the end of life.

The dreams studied were compiled by myself into a collection of thirty dreams reported to clinicians by dying individuals in the late twentieth century and early twenty-first century. Clinicians reporting these dreams include Jungian analysts Marie-Louise von Franz, Robert Bosnak, Edward Edinger, Jane Wheelwright, clinician Mary Anne Sanders, and Jungian Diploma Candidate Jill Fischer. In order to compare a set of dreams to the Hall-Van de Castle norms, the reports must be as close a transcript as possible to the exact words of the dreamer and contain 50-300 words. Dreams included in this analysis fit these criteria and, additionally, this series includes only one dream per dreamer so as to avoid creating a data bias in favor of one patient or another. There is, of course, an inherent data bias in that the dreams reported come primarily from trained Jungian

analysts. In addition, the majority of dream reports available for study were chosen by von Franz for inclusion in her work *On Dreams & Death.* Due to patient privacy acts which are in force in the twenty-first century, access to patient records is not possible for a study such as this. However, von Franz has used this published collection to make her point regarding repeating dream themes at the end of life. Therefore, it is fitting to subject as many of the same dreams as is possible to rigorous content analysis to see what emerges.

For the purpose of demonstration, a content analysis will be described below in detail as it is applied to a sample dream. The dream is that of an analysand of von Franz, a 61-year-old man, who died somewhat unexpectedly from heart failure four weeks after he reported this dream:

> He was once again in the officers school where he had acquired the rank of lieutenant thirty years before. An old corporal of whom he thought highly at that time and who in reality had the meaningful name of "Adam," appeared and said to him, "Mr. Lieutenant, I must show you something." He led the lieutenant down into the cellar of the barracks and opened a door - made of lead! The dreamer recoiled with a shudder. In front of him the carcass of a horse lay on its back, completely decomposed and emanating an awful corpse smell. (*On Dreams* 19)

This dream has ninety-seven words and thus is eligible for inclusion within the parameters of the study. The following steps suggest an order of evaluation such that all parameters are considered:

1. Identify and code the characters in the dream: In this system the dreamer is not coded as he or she is assumed to be present in all dreams. In this dream, there are two characters other than the dreamer: (1) A single male individual identified by name and occupation who appears to be an adult. Thus he is coded as 1MOA, or 1 male (M) identified by his occupation (O) who is an adult (A). (2) The dead horse is identified as another character. In this method of coding, animals of any type are identified by the initials ANI. In this case the modifier of 3 is placed in front of ANI to identify that the animal is dead. Thus the second character is coded as 3ANI.

2. Identify any acts of aggression or friendliness in the dream and rate them on a scale of 1-8 for aggression and 1-7 for friendly interactions: Aggressive interactions are rated on a scale ranging from nonphysical aggression (e.g. verbal insults) to physical acts of aggression (e.g. fighting). Aggressive acts of any kind are coded as A with the appropriate number after to denote the type of aggressive interaction. Friendly interactions are coded in the same fashion as aggressive interactions, but are coded with an F followed by a number: The parameters for these distinctions are clearly defined in the coding rules in Domhoff's text *Finding Meaning in Dreams* and are publicly available online at http://psych.ucsc.edu/dreams/Coding/index.html. In the dream example above, there are no friendly or aggressive interactions. The interaction between the dreamer and the man is reported in a neutral tone.

3. Any sexual acts between characters is coded with an *S* and again, a range of sexual interactions are separated into distinct categories: No sexual interactions occur in this dream report.

4. Code any movement which occurs in the dream:

A. Movement that involves a character changing his or her location by self-propelled movements of his or her body (*Finding Meaning* 237) is denoted with an *M.* In this dream, the dreamer is coded with an *M* because he tells of going down to the basement. Additionally the *old corporal* moves down into the basement as well. These are coded as *D* (dreamer) *M* (movement) and *1MOA* (1 Man identified by his Occupation who is an Adult) *M* (movement).

B. The next type of activity to be coded is *Physical.* This is the sort of movement that one does while standing still, such as combing ones hair or brushing ones teeth. (*Finding Meaning* 237). In this dream, the dreamer shudders. This movement done while standing still is coded as *D* (dreamer) *P* (Physical).

Other coded activities in this dream are as follows:

* The corporal speaks: *1MOA V*(verbalizes)

* The dreamer sees (the dead horse): *D S* (Visual)

5. The dream is evaluated for Striving: Success and Failure, and Misfortune and Good Fortune, none of which are present in our sample dream.

6. The dream is evaluated for any emotional tones expressed by the dreamer or other characters. Classes of emotions include: Anger, Apprehension, Happiness, Sadness, and Confusion. A classification of Apprehension includes feeling terms such as *terrified, scared,* or *frightened* as well as others. Our dreamer experiences Apprehension (*AP*) as defined by Domhoff (252).

7. One examines the physical surroundings described in the dream. Is the setting indoors (I), outdoors (O), or unknown (U)? Is it familiar (F), unfamiliar (U), or questionable (Q)? In this dream the setting is indoors and familiar, and thus is coded as *IF*. Each different setting in a dream is coded individually, but "all changes in location within a single building are coded as a single indoor setting" (Domhoff 258), thus even though the two characters change location when they descend the steps, they remain in the same building and so the location is coded only one time.

As is clear, the Hall-Van de Castle system of coding is extremely complex!

8. Categorizing objects in the dream: This category includes any architectural details (*A*). In the sample dream of the sixty-one-year old analysand of von Franz, the reader will recall that the dreamer enters the building where he trained for military service ("Archetypes" 14), thus the building is been identified as a school building and is given a vocational code: *AV*. The dreamer infers the presence of steps in the building, coded as an Architectural Detail: *AD*. He also mentions the door. This is coded as an additional *AD*. He mentions that the door is made of lead. This sort of detail is coded as Building Materials: *AB*. This dream includes the mention of body parts: the back of the horse is named, and so the dream is given a coding of *BT.* Other codeable objects not present in this dream include: Household objects such as those one would find in a home (E.g. a bed, a table, a clock), food, implements such as tools, weapons, or sporting goods for recreation, travel related means of conveyance (E.g. a car, bus, boat etc.), streets, regions such as a park or other "land area limited by some form of

boundary" (*Finding Meaning* 263), nature, body parts, clothing, communication (such as radio or television), money, and lastly a category for miscellaneous objects not otherwise included.

9. Finally, the dream is mined for any descriptive elements. In this dream, the corporal is described as *old corporal* and so, the modifier of A+ is given to denote old age. The smell is described as *awful*, and is rated with I+ for being very intense. And the dreamer is clear that he evaluates the scene with the decomposing horse as being a distinctly unpleasant experience, thus the dream content rating includes an E- to denote a negative aesthetic evaluation expressed by the dreamer. No color or size is mentioned. No density (such as a crowded room), temperature, velocity, linearity or time scale is given.

This style of dream analysis provides extensive quantifiable information on each dream allowing the dream researcher to compare and contrast a plethora of items in any given dream series. In the end, the above dream is coded as follows:

* Characters: 1MOA, 3ANI

* Aggression: None

* Friendliness: None

* Sexuality: None

* Activities: 1MOA speaks, Dreamer moves, 1MOA moves, Dreamer Physical

* Success/Failure: None because there was no striving on the part of any character

* Misfortune or Good Fortune: Neither

* Emotions: D, AP for apprehension on the part of the dreamer upon seeing corpse

* Settings: IF, indoor familiar

* Objects: AV (architecture vocational to denote the school), AD x 2 (Architectural details of steps and door), AB for building material of lead, BT for body part mentioned (horse's back)

* Modifiers: A+ (old corporal), I+ (intensity of terrible smell), E- (aesthetic evaluation by dreamer of horse corpse)

The dream series analyzed for this project includes dreams from a wide range of individuals living at the end of life. In twenty-first-century America, the most likely place to find such a collection of dreams is in personal dream journals kept by individuals which are not necessarily in the public domain. Alternatively, one can find such series in the published works of psychotherapists. With this restriction in mind, I have compiled a collection of thirty end of life dreams reported by analysands to their analysts to be subjected to a Hall-Van de Castle examination. Each of the thirty dreams was coded in the fashion demonstrated above and entered into the *Automated Dream Data Entry System and Statistical Analysis Tool (DreamSAT)* program created by Domhoff and his research associate Adam Schneider. The *DreamSAT* program analyzed the data, compared it to the norms established by Hall and Van de Castle, and determined any statistical significance of the findings. (See Appendix A and Appendix B for data sheets

containing raw data). Preliminary findings show statistically significant variations from the norms in several areas and are detailed as follows: (Note: In each entry in this list, the compiled end of life dream series is reported first followed by the statistical norms for the rating scale.)

1. Overall, fewer friends were reported in this dream series: 7% vs. the norms of 31% for males and 37% for females.

2. Larger numbers of family members: 27% vs. 12% for males and 19% for females.

3. Larger numbers of dead or imaginary characters: 10% vs. 00% for males and 1% for females. (Note that imaginary characters include any sort of divine figure.)

4. Far fewer acts of aggression relative to friendly acts: 7% vs. 59% for men and 51% for women.

5. No acts of physical aggression (0%) vs. 50% for men and 34% for women.

6. Aggressive acts of any kind per dream character (A/C index) are significantly less in our series: 0.02 vs 0.34 for men and 0.24 for women.

7. Friendly acts of any kind per dream character (F/C index) are significantly more common: 0.32 as compared to 0.21 for men and 0.22 for women.

8. Familiar settings occurred less often in our dream series: 52% of the time as compared to 62% for men and 79% for women.

9. Self-negativity percent is significantly less in this end-of-life dream series: 30% compared to 65% for males and 66% for females.

10. Negative emotions were significantly fewer than the norms: 46% relative to 80% for each males and females.

11. Dreams with at least one act of aggression were dramatically less at 0.03% relative to norms of 47% for males and 44% for females.

12. There were no sexual acts in our dream series compared to norms of 12% for males and 4% for women.

It is extraordinary for these preliminary findings that there are particular differences in the types of social interactions being experienced in the dreams of healthy individuals as compared to the dreams of those who are dying. This is surely worthy of further study but is not the subject of this dissertation.

Discussion

This section has explored two different ways of studying the dreams of those living at the end of life. First, the process of dream interpretation based on the imagistic metaphors seen in the dream. There is ample anecdotal evidence over the course of human history to support the validity of this method. Any aspect of human life that has survived for as long as four thousand years in the history of humankind must be considered to have a certain historical credibility. Whether modern society agrees or disagrees with the validity of the information gleaned from the art of oneiromancy is a different question. The second means of studying dreams gives one a relatively objective means for studying and comparing dreams of individuals or particular groups to a group of norms established in

the United States in the mid-twentieth century.

These two methods of studying dreams appear to be complimentary in that each brings a different piece of the dream puzzle into the light of day. Discussions with Dr. Domhoff have made it clear that no research of this sort has been published on the dreams of those living at the end of life. Armed with the preliminary data above, one can hope that the work of those involved with dying individuals might begin to look more seriously at dreamwork as yet another means of palliating the fears of those living at the end of life.

Chapter 6

The Voices of Children

> "Granny, why are your eyes so dim?"
>
> "Because I am old"
>
> "But you will become young again?"
>
> "Oh, dear, no. I shall become older and older, and then I shall die."
>
> "And what then?"
>
> "Then I shall be an angel"
>
> "And then you will be a baby again?"
>
> (Jung, "The Development of Personality," *CW* 17: 5)

C. G. Jung explains that these hopeful words, spoken by a three-year-old girl, solved two problems in her mind. First, he writes, "it solved in a comforting manner not only the painful thought of dying, but at the same time the riddle of where children come from" (Jung, *CW* 17: 6). Inherent in the words of this youngster is the magical thinking so often associated with children. The brain of a developing child is described by Daniel Seigel: "A massive proliferation of synapses occurs during the first years of life" (*Mindsight* 41). The three-year-old can be understood to be making sense of her world through her communication and discussion with her grandmother. This youngster is discovering what some call the *right way of the world* - that old people die before young people.

Relationships such as the child with her grandmother directly alter the ways in which the youngster's brain is shaped and develops. Seigel explains that neural connections are shaped not only by genetics but are also shaped and created by our experiences and relationships with others (*Mindsight* 41). Seigel writes:

> [F]rom our first days of life, our immature brain is also directly shaped by our interactions in the world, and especially by our relationships. Our experiences stimulate neural firing and sculpt our emerging synaptic connections. This is how experience changes the structure of the brain itself - and could even end up having an influence on our innate temperament. (*Mindsight* 41)

A boy only four years older than the little girl described by Jung shows yet another aspect of the relationship between life and death in children. This youngster is living with a life-limiting illness. He is not among the cadre of children who will grow into adulthood. The words of this youngster focus on the power of being in relationship. The poet is an unnamed seven-year-old camper at the Hole in the Wall Gang Camp, a camp begun by actors Paul Newman and Joanne Woodward for children living with terminal illness.

The Way You Change Things

If I am alone

There is a clear and empty

Blank sky.

If I am with you I see blinking, shining, beautiful

Stars in my heart.

When I am alone

In the forest

I see only woods

But when I'm with you I see nature.

Last night you looked like a dancing violet in the wind.

(Newman, *I Will Sing Life*, xiii)

At what point did this seven-year-old leave the body of a well child and recognize that he or she was now living in the body of a sick child? This chapter will explore the ways in which disease and environment shape the dying child, the ways in which the dying child shapes his or her environment, and how the stories told by the child who is living in the tragic landscape of the dying are unique to childhood.

To begin, one must first explore the ways in which twenty-first-century America defines a *child.* It is a simple and yet complicated question to answer. In the Introductory chapter to their work, *Rethinking Childhood,* Peter B. Pufall, Emeritus professor of psychology and senior fellow of the Kahn Institute for Liberal Studies at Smith College, and Richard P. Unsworth, Senior Fellow at the Kahn Institute pose the question "What is a child?" (15). They write:

> We start with the assumption that children are agents and that they have voice even before they have words. These qualities thrust them immediately into the construction of their social reality and make them participants in the continued reconstruction of their agency. (15)

Pufall and Unsworth explain that from the earliest preverbal time in the life of a child, the presence and the actions of the youngster change the social environment in which the child lives. And conversely, any changes in the environment affect the behavior and development of the growing child. The child is an interactive and engaged part of his or her environment, which has the ability to shape the developing brain in ways that affect its functioning. Attachment theorist Daniel Seigel indicates:

> A massive proliferation of synapses occurs during the first years of life. These connections are shaped by genes and chance as well as experience
>
> . . . . But from our first days of life, our immature brain is also directly shaped by our interactions in the world, and especially by our relationships. Our experiences stimulate neural firing and sculpt our emerging synaptic connections. This is how

> experience changes the structure of the brain itself . . . . (*Mindsight* 41)

The discussion of the experience of children living with life limiting illnesses must begin with the delineation of the developmental stage known in modern society as *childhood*. The American Academy of Pediatrics (AAP) is an organization of 60,000 physicians committed to the care of children. The AAP committee on Child Health Financing provides a working definition of the children under their care by defining the scope of pediatric care: "all infants, children, adolescents, and young adults [up to the age of 21]" ("About" 1040). Using this definition, one can argue that a child is one who, different from an adult, lives in a continually changing, profoundly complex physiological state of growth that is shaped by both nature and nurture.

In his seminal text *Identity and the Life Cycle,* developmental psychologist Erik Erikson asserts:

> [A]ll individuals are borne by mothers; . . . everybody was once a child; . . . people and peoples begin in their nurseries; and . . . society consists of individuals in the process of developing from children into parents. (17)

Joseph LeDoux, neuroscientist and professor at New York University, argues that the brain development of a child is co-dependent on both nature and nurture. A growing body of evidence supports LeDoux's claim: "Nature and nurture are not different things but instead are different ways of doing the same thing - wiring synapses23 in the brain. Synapses encode who we are" (*Synaptic* 4). LeDoux is among many neuroscientists working today to understand and describe the complex nature of neuroplasticity as it functions in the human brain.

The ability of the brain to incorporate and respond to new experiences, both internal and external, is explained by neuroplasticity. Neuroplasticity, or the ability to alter neuronal firing patterns through experience, plays a large role in the developing child and gives us a window into how it could be that a seven-year-old child could write a poem of such depth of maturity as that cited above.

As a society, one must consider how we as a collective engage with the population of children who will not live long enough to become parents. Such children, numbering some 55,000 children annually in the United States, live a very different life trajectory from healthy children, whose lives will carry them from infancy into old age. The experiences of children living with life-limiting illness are unique because they will be denied adulthood. Given such profoundly complex and varied physiologies, one must enter into a discussion of children living with life limiting illness with a certain grace and caution and be open to the possibility that these children gain other knowledge by living with this limitation.

In the preface to their work *Children's Encounters with Death, Bereavement, and Coping,* Professor of Philosophical Studies at Southern Illinois University Charles Corr, in collaboration with Professor of Health and Human Sciences at Brooklyn College David Balk, argues: "All too often, issues involving children and adolescents are run together as if there were no important differences between these two developmental groups. . . . " (xxiii). Understanding the concerns and problems particular to those children living with life limiting illnesses is imperative to assisting these youngsters as

they approach their own death.

Young people living with terminal illness live in two distinctly different worlds. In their article "Suffer the Children," researchers Judith M. Stillion and Danai Papadatou make the point:

> Perhaps the most important maxim to keep in mind is that seriously ill children and adolescents are youngsters who cope with the normal challenges of development in addition to the extra burden of their illness. They must learn to live in two worlds - the medical world with the threat of painful treatment, relapse, and death; and the normal world of home, school, and community, with all the challenges that healthy children face. (303)

This chapter will focus on a study performed on a group of young children, ages 3-9, living in the mid-western United States during the 1970s who had been diagnosed with leukemia, a cancer of the bone marrow. The researcher, Myra Bluebond-Langner, is the current Board of Governors Professor of Anthropology at Rutgers University and is recognized as a leader in the field of children's studies. Although the study was conducted almost thirty years ago, leukemia continues to be a major cause of mortality in children. According to a report generated in 2010 by The Leukemia and Lymphoma Society, "leukemia causes more deaths than any cancer among children and young adults under the age of 20" ("Facts" 2010-2011).

Bluebond-Langner's work is presented as a play in which the author has created dialogical and experiential composites from the hundreds of interviews with children, their parents, their siblings, and hospital staff that she conducted over the course of her research. The use of this literary form enabled Bluebond-Langner to include and describe the many social interactions which formed the experiences of the children, as well as insure the privacy of those involved in the study (13). Through this method, she claims that she was able "to present the information without compromising scientific validity" (13). Her main character is five-year-old Jeffrey Andrews, a youngster who has been diagnosed with leukemia. I will use Jeffrey's experiences to discuss and illuminate the role of physiology as it informs his experiences as he moves from being a healthy normal child into the subset of children who face death at young ages. I will work to focus on the themes which are highlighted by the children themselves on what it means to be a young child suffering with a terminal disease.

In the interest of hearing the words spoken by actual children living with terminal illness, I will draw on the work of a group of eleven adolescents and teens (ages 8-19) from California, most of whom were living with cancer or leukemia in the 1970s. Collectively, these children created a workbook for children who, like themselves, "have gotten sick with cancer, leukemia, and other sicknesses where you are scared you might die" (Dezendorf et al. 3). The workbook, entitled *There is a Rainbow Behind Every Dark Cloud*, will be used to give voice to the unspoken feelings of Jeffrey as he proceeds from well child, through illness, to his death.

In the beginning: The first hospital admission

> *The nurses' station on the thirteenth floor of a metropolitan medical center, Monday, 4:00 p.m.: A small, pale, dark-haired boy, holding his parents by each hand, steps off*

the elevator. He walks to their bewildered and hesitant step. (Bluebond-Langner 18)

From this moment forward, the experiences that Jeffrey has will separate him from his previous cohort group of healthy children. As he and his parents step off of the elevator, they move into the unfamiliar world of a hospital, an environment filled with strangers, medications, unfamiliar and often unpleasant smells, and painful procedures. Bluebond-Langner makes the reader aware of the angst being felt by his parents. Parents are often the primary attachment figures for children and, as we see in Jeffrey, children stay closely connected to their parents in frightening or unfamiliar situations. Not surprisingly, Jeffrey's parents are described as bewildered and hesitant.

Unfortunately for the youngster in the hospital, as in other situations, the mind of a child uses the mind of the primary attachment figure, in this case Jeffrey's parents, to understand and make sense of situations outside of his or her experience. Seigel explains: "At the level of the mind, attachment establishes an interpersonal relationship that helps the immature brain use the mature functions of the parent's brain to organize its own processes" (67). In ordinary circumstances, one can understand the benefit to the immature brain of leaning on the experientially seasoned mature brain of one's primary attachment figure. Seigel explains:

> The emotional transactions of secure attachment involve a parent's emotionally sensitive responses to a child's signals, which can serve to amplify the child's positive emotional states and to modulate negative states. (*Developing* 67)

In Jeffrey's case, his parents are likely aware of the possibility that the life of their child is threatened, and their unspoken anxiety is observed in their affect - hesitancy and bewilderment.

Bluebond-Langner reports that none of the children had been hospitalized prior to her work with them. This is the first time that Jeffrey is in a hospital ward. The feeling of anxiety upon entering a hospital is a common one. An article published in 1995 by C. M. Schuldham, Director of Nursing and Quality in the Royal Brompton Hospital in London, discusses the prevalence of anxiety in hospitalized patients:

> There are many factors in everyday life that provoke anxiety, and hospitalization must be counted as one of them. Admission and all the events that occur in the lead up to it and during the hospital stay can individually and collectively cause anxiety in patients and their carers. (87)

Emotions such as anxiety, explains Seigel, are "primarily nonconscious mental processes. In their essence, they create a state of readiness for action, for 'motion,' disposing us to behave in particular ways within the environment" (*Developing* 132). Writing in Declan Walsh's24 text, *Palliative Medicine*, Lisa Schum, a postdoctoral fellow in pediatric psychology at the St. Jude's Children's Research Center (Memphis, TN), and Javier Kane, Director of Palliative Medicine and End-of-Life Care also at St. Jude's, suggest that anxiety in the younger child might present as "excessive concern about competence, need for reassurance, fear of the dark, fear of harm to self or an attachment figure, and somatic complaints"(Chapter 196, unpaginated webtext).

The anxiety felt by Jeffrey's parents will surely have an effect on the ways in which Jeffrey experiences his own anxiety in this situation. Thomas G. Power, Chair of the

Department of Human Development at Washington State University, argues:

> Because children are often exposed to potentially stressful events in the presence of their parents (or with their parents nearby), and because parents are often responsible for helping their children cope in these situations, it is not surprising that parents play a major role in this regard. (272)

The infectious nature of stress between a child and his or her parents has long been observed. But in a stunning discovery, neuroscientists have delineated several physiologically specific pathways that explain some of the contagious nature of anxiety. Findings support that anxiety of a parent has a direct effect on neural firing patterns in the developing brain of the child. These brain alterations have been defined by Seigel, Schore, and others as the brain quality of neuroplasticity, the ability of the brain to alter its neuronal firing patterns and the neurons themselves when one is presented with new input and information. In his talk to the Fifth Appalachian Conference on Behavioral Neurodynamics in 1998, researcher Allan Schore discussed neuroplasticity in terms of child development. He affirms neuroplasticity to be "[t]he ability to be continuously informed about external changes in the environment as well as about the current status of the internal bodily states is a fundamental function of the brain" (337). Schore points out:

> [D]evelopment can only be understood in terms of a continuing dialectic between an active and changing organism and an active and changing environment, and that the most important part of that environment are the interactions and relationships the child has with others. (338)

Research into the biochemistry of attachment has delineated the regions of the brain which are most active in the maintenance of close relational ties. Seigel explains:

The amygdala25 is a cluster of neurons that serves as a receiving and sending station between input from the outer world and emotional response. . . . In addition to the amygdala, the orbitofrontal cortex26 and anterior cingulate27 are "especially sensitive to social interactions." (*Developing* 132) (See fig. 6.1)

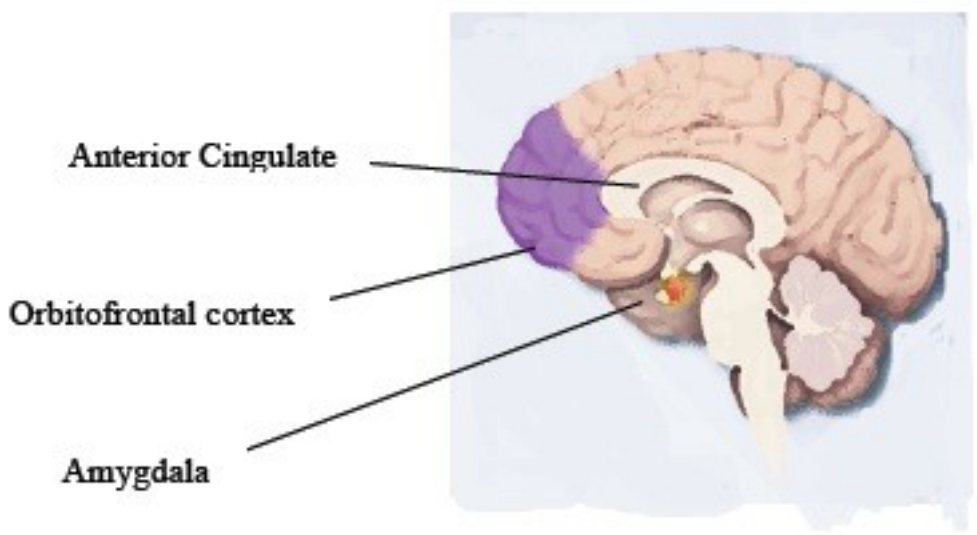

Figure 6.1 Regions of the brain particularly sensitive to social interactions.

Source: Adapted from "Post Traumatic Stress Disorder" NIMH.

The anterior cingulate refers to the region of the cingulate that lies forward in the structure itself. Both the amygdala and the cingulate are distinct parts of the limbic system of the brain, a system in the brain known to be involved in the regulation of emotion and memory (See fig. 6.1). Researchers Morten L. Kringelbach and Edmund T. Rolls from the Department of Experimental Psychology at the University of Oxford explain:

> Strong reciprocal connections are found between the orbitofrontal cortex and the amygdala, and evidence suggests a similar role for the two brain areas, although the orbitofrontal cortex appears to be the more important for rapid emotion-related learning . . . .(351)

Research demonstrates that "the human orbitofrontal cortex is an important brain region for the processing of rewards and punishments, which is a prerequisite for the complex and flexible emotional and social behaviour which contributes to the evolutionary success of humans (341).

At the tender age of five, Jeffrey's social interactions are described by Bluebond-Langner as primarily being with his parents, his older brother, his younger sister, and his maternal grandparents. Bluebond-Langner gives the reader every indication that this child is closely attached to his mother. Thus, one can acknowledge that the developing brain of the youngster is being shaped and altered by the emotions of his mother.

From the earliest moments of the arrival of Jeffrey and his parents on the hospital floor, interactions have occurred between Jeffrey and his parents, Jeffrey and several nurses, and Jeffrey and several doctors. All conversations recorded between the children (and their parents) and the nursing staff are cordial, professional, and friendly in tone. The young California authors are in agreement with this assessment but write that the presence of the nurses did not help them to assuage their sense of homesickness: "The nurses were great at the hospital. They made us feel comfortable, but we all wanted to go home" (Dezendorf et al. 31). Jeffrey too experiences homesickness as well as separation anxiety as his parents leave him in the hospital, in a room by himself, for the first night.

The first night in the hospital

> VOICE OVER THE LOUDSPEAKER: All children in their rooms. (*Lights in the hallway go off. Children can be heard talking in their rooms; the TV's are still on.*)
>
> MRS. ANDREWS: I think that we are going to go home now, Jeff.
>
> JEFFREY: (*Whimpers*.)
>
> MRS. ANDREWS: . . . Daddy and I haven't had any dinner yet either. We'll be here first thing in the morning. Is there anything I can bring you?
>
> JEFFREY: (*Shakes his head*)
>
> MRS. ANDREWS: (*Stands up, picks up her coat, and walks over to the bed. Bends over and gives JEFFREY a hug and kiss*.)
>
> MR. ANDREWS: (*Walks over to the bed. Bends over and kisses JEFF on the forehead*) Good night, son.

MRS. ANDREWS: (*Walking to the doorway*) Do you want the light out?

JEFFREY: (Shakes his head.)

(MR. AND MRS. ANDREWS leave. MRS. ANDREWS *looks back*.)

JEFFREY: (*Turns over away from the doorway and cries himself to sleep*.) (Bluebond-Langner 24)

It is widely accepted that crying is among the earliest and perhaps the first human behavior to be experienced in one's lifetime and as such, is understood to be a universal human experience. "This reaction to separation," explains Jaak Panksepp Emeritus Professor of Psychology in the Center for Neuroscience, Mind, and Behavior at Bowling Green State University, "is immediate, reflex-like and consistent across different animals" (Panksepp et al. 473). He hypothesizes the neural basis for this behavior:

> Because of the vigor and ubiquity of this emotional response to social separation, it seems likely that social motivation is a direct manifestation of innate neural circuits which are as spontaneously responsive as those which govern other basic motivated behavior patterns such as feeding and drinking. (473)

In addition to the areas of the brain recognized for their involvement in crying, researchers have found that the brain areas named above, the anterior cingulate cortex and the amygdala, are regions of the brain which are rich in endogenous28 opiates. Panksepp and his colleagues argue:

> Although relatively little is known about brain mechanisms which control social affect and social attachments, there is an abundance of evidence concerning brain areas which control specific social behavior patterns, and they are invariably rich in opioids. (483)

Researcher in animal behavior at the National Institutes of Health John D. Newman expresses a similar conviction about the role of endogenous opiates in the crying mechanism: "the neurochemical system most clearly associated with crying is the opiate system" (159).The importance of the limbic cortex and the amygdala in the processing of human emotions has been discussed at length in previous chapters. However, the opioid system and its implications in the felt experience emotional and physical pain require further discussion.

Opioids are naturally or synthetically produced compounds that behave in ways similar to opium. The therapeutic value of opium and its narcotic analogues (e.g. morphine, codeine, and heroin) in creating a level of analgesia, has long been recognized in the field of pain management. However, in their text *Neuroscience: Exploring the Brain* Mark F. Bear, Professor of Neuroscience Massachusetts Institute of Technology, and his colleagues in the Department of Neuroscience at Brown University explain that it was not until the 1970s that researchers began to understand the cellular mechanisms by which these compounds work:

> [O]pioids act by binding tightly and specifically to several types of opioid receptors in the brain and that the brain itself manufactures endogenous morphine-like substances, collectively called endorphins. (418)

Endorphins and enkephalins, related endogenous opioids, are among what physician

Jerome Groopman describes as “our own natural forms of morphine” (*Anatomy* 170). Bear et al. summarize the wide ranging distribution of biologically innate opiates:

> Endorphins and their receptors are distributed widely in the CNS29, but they are particularly concentrated in areas that process or modulate nociceptive30 information. . . . In general, extensive systems of endorphin-containing neurons in the spinal cord and brain stem prevent the passage of nociceptive signals through the dorsal horn31 and into higher levels of the brain where the perception of pain is generated. (418)

Nociception is the perception of pain that stems from tissue injury such as when one is stuck with a needle. Stanley Herring, Medical director of Spine Care at the University of Washington School of Medicine suggests that pain and the perception of pain are recognized to be one part nociception and three parts anxiety (3:07). Indeed, the International Association for the Study of Pain defines pain as being “an unpleasant sensory and emotional experience associated with actual or potential tissue damage, or described in terms of such damage” (Loeser and Treede 473). Jeffrey is experiencing emotional pain, causing him to weep. As he weeps, opioids are being naturally produced in his body which generates relief from his pain. In an interview conducted by physician Virginia Campbell with Jaak Panksepp in 2010, Panksepp discussed the research which led to this astonishing neurochemical discovery:

> [W]hen you isolate a little animal and they [sic] begin to cry, will opiates eliminate the crying the way mommy does? And the answer was unambiguously yes - and very powerfully and sensitively. (“Interview” 20)

The neurophysiology of Jeffrey’s tears make it clear that through the act of crying his body creates a self-generated means of soothing. In addition, opiates have the well-established effect of causing drowsiness. Crying activates Jeffrey’s endogenous opioids, naturally mimicking the felt experience of being soothed by his mother and producing the blissful state of analgesic somnolence. One must recognize that the pains associated with terminal disease, in conjunction with the painful experience of separation from his mother, alters Jeffrey’s brain function. At the same time, areas of his brain that have been activated by all of these experiences express themselves through his behavior. (e.g. crying and falling asleep).

Other feelings that a child might feel when left alone in a hospital are expressed in the writing of the California youngsters:

> What bothered us most about being in the hospital was feeling alone. We didn’t like being separated from our parents, brothers, sisters, and friends. . . . In the hospital time dragged. We were bothered by the lonely nights. There wasn’t anyone to talk with. There seemed to be nothing to do. All of us missed home a lot. (Dezendorf et al. 19)

The feelings expressed here are of homesickness and separation anxiety. Physician and Distinguished Fellow of the British Psychoanalytical Society Jean-Michel Quinodoz describes separation anxiety as “a universal phenomenon; indeed, it is such an intimate and familiar emotion that we almost have to make a special effort to realize that it is a concern which accompanies every instant of our everyday lives” (4). Quinodoz argues for the problematic nature of overwhelming separation anxiety: “Separation anxiety, where

excessive, is the tragic fear of finding oneself alone and abandoned . . . . As loneliness, solitude may turn into a deadly abyss" (3). The experience of hospitalization threatens to emotionally overwhelm any child in even the best of health.

In his work entitled *Loneliness: The Experience of Emotional and Social Isolation,* Robert Weiss, Director of the Work and Family Research Unit and Research Professor at the University of Massachusetts, discusses the pernicious nature of loneliness:

> [Loneliness] is not simply a desire for company, any company; rather it yields only to very specific forms of relationship. Loneliness is often uninterrupted by social activity; the social activity may feel "out there," in no way engaging the individual's emotions. It can even make matters worse. However the responsiveness of loneliness to just the right sort of relationship with others is absolutely remarkable. (13)

This observation, made over thirty years ago, allows one to sense how a hospitalized child whose needs are tended to twenty-four hours a day by medical staff and who is often surrounded by other children, and indeed often shares a room with other children, may still feel a sense of loneliness and separation during his or her hospital stay.

Director of the University of Chicago Center for Cognitive and Social Neuroscience, John T. Cacioppo focused his research on the physiologic components of loneliness. In his work *Loneliness: Human Nature and the Need for Social Connection*, Cacioppo draws on current scientific research to support the following statement: "Loneliness not only alters behavior but shows up in measurements of stress hormones, immune function, and cardiovascular function" (Cacioppo and Patrick 5). Children living with childhood cancers are dealing with the physical stressors inherent in growing up while concomitantly living in a bodily system that is under attack by a life-destroying disease. In addition, these youngsters must endure the emotions of loneliness in the foreign environment of the hospital, with all of its attendant stress, unusual sights, and unfamiliar smells. The experience of hospitalization threatens to emotionally overwhelm any child, even a youngster in the best of health.

Weiss explains that this situation of being left alone in the hospital is tantamount to "unwanted individuation [the feeling when one is] separated from parents and others to fend for oneself" (Weiss and Bowlby 15). Recognizing the correlation between social rejection and the experience of loneliness, Cacioppo devised a study using functional magnetic resonance imaging32 to explore the activity in the brain when an individual experienced either social rejection or loneliness. He demonstrated

> [t]hat the emotional region of the brain that is activated when we experience rejection is, in fact, the same region - the dorsal anterior cingulate33 - that registers emotional responses to physical pain. (Cacioppo and Patrick 8)

Professor and Chair of the Department of Anatomy at University of California San Francisco Allan Basbaum explains that there is no singular area in the brain which perceives pain; rather the limbic system and the emotional cortex "light up" based on the intensity of the pain perceived by the individual. Basbaum further delineates this point in a talk given on November 17, 2010:

> The areas of the brain that light up when you have a powerful emotional response to an external stimuli are not that different from the areas of the brain that light up when

you have a pain experience. (45:27)

But Basbaum points out that the anterior cingulate gyrus is also involved: “The more unpleasant the experience, the more the anterior cingulate gyrus lights up” (46:35). It is beyond all doubt that one’s brain and central nervous system are actively involved in the experience of not only physical pain, but alas in the experience of emotional pain.

Unfortunately, children as young as and younger than Jeffrey may not have the words to describe the myriad emotions which they may experience. One can imagine Jeffrey feeling overwhelmed by all that is happening to him as he begins to weep and falls asleep. Bear explains: “Biological stress is created by the brain, in response to real or imagined stimuli. The many physiological responses associated with stress help protect the body, and the brain, from the dangers that triggered the stress in the first place” (Bear et al. 491). Although all humans have experienced crying at times of feeling overwhelming stress, researchers have demonstrated that crying does appear to provide a release for such stress through an extremely physiologically complex pathway. John Newman remarks on how little is known about the neurobiology of crying. “However,” he argues, “there is strong evidence to support the involvement of the amygdala as well as the anterior cingulate gyrus” (155). By the next morning, Jeffrey is no longer crying. The following scene begins with Jeffrey awake in his room, engaging in common activities of childhood.

The next day

From the time that Jeffrey has awakened, he has been alone in his room, busying himself coloring and watching the television. As visiting hours begin, his mother has returned to her son’s room. Today, Jeffrey has to undergo two painful tests. The first requires having his finger stuck and squeezed with a small needle. The second is a bone marrow aspiration, recognized as one of the most painful experiences that leukemic children must undergo over the course of their illness. The aspiration involves a large bore needle inserted deeply into the hip bone in order to obtain a small amount of bone marrow for diagnostic purposes. Until recently, the procedure was done with terribly sub-optimal levels of analgesia, causing extreme physical pain as well as severe emotional distress in children. Excerpts from this scene will highlight the ways in which hospital personnel communicated with Jeffrey regarding each of these painful procedures and the ways these communication styles contributed to Jeffrey’s felt sense of pain. The first, the less invasive procedure; taking a small amount of blood from Jeffrey’s finger:

> MRS. ANDREWS: (Takes off her coat and puts it on the empty bed. She pulls the chair over next to the bed and sits beside JEFFREY.)
>
> (ROBERTA [medical technologist], carrying her tray of equipment enters)
>
> JEFFREY: (Whimpers.)
>
> ROBERTA: It won’t hurt. I just need some blood to look at (takes JEFFREY’s hand and washes it with an alcohol wipe.)
>
> JEFFREY: (Watching her every move) Tell me when you are going to stick me.
>
> ROBERTA: Now. (Sticks JEFFREY’s finger and squeezes the blood from it into small pipettes34) Ok, Jeffrey. Thank you. (Bluebond-Langner 27)

To better understand what is occurring for Jeffrey in this scene, it is necessary to break the action down into succinct parts. Jeffrey's mother is sitting next to him in a chair next to his bed. Roberta, a stranger to Jeffrey, enters the room. Jeffrey's mother does not express anxiety at Roberta's presence. Jeffrey is described as paying close attention to Roberta. The television is playing children's programming, ostensibly providing some level of comfort or distraction for Jeffrey. Roberta lies to Jeffrey when she says that what she will be doing will not be painful. The youngster is wary, he displays vocalizations of mild distress (he whimpers), but he does not run away, nor does he scream. Rather he focuses his attention on the procedure itself.

It is common knowledge among pediatric clinicians that a young child may experience a wide range of discomfort when having blood drawn from his or her finger. But Jeffrey has exhibited distress (whimpering) in anticipation of the painful procedure rather than during the procedure. External factors that influence the experience of pain in this youngster include four distinct components: (1) The distraction of the television in the room. (2) The experience of his primary attachment figure sitting by his side. (3) The exertion of some level of control over his situation by asking Roberta to tell him when the poke would occur. (4) The intense focus on Roberta's every move.

How is one to understand Jeffrey's state of heightened alert but calm demeanor in this situation? Pain and palliative care physicians John Collins and Suellen Walker report that "[p]ain is a subjective experience and is based on self-report of the experience" (268). It appears that the combination of the four supportive measures delineated above has allowed Jeffrey to tolerate this unpleasant experience with only a modicum of distress. Through an exploration of the physiology underlying each of the four aspects of this experience, one is able to shed light on what is occurring in Jeffrey's brain during the procedure. First, the role of children's television.

Television programming for children is the topic of much debate. However, in this situation, the television provides Jeffrey with some relief from his boredom and loneliness. How a television program assuages loneliness is discussed by University of Buffalo researcher Jaye L. Derrick and his colleagues in their article "Social Surrogacy: How Favored Television Programs Provide the Experience of Belonging," published in 2008 in the *Journal of Experimental Psychology*. Their research supports the hypothesis that "parasocial relationships in favored television programs can provide the experience of belonging" (352). The authors demonstrated that "people turn to favored television programs when feeling lonely, and feel less lonely when viewing these programs" (352). Additional studies performed by the same authors further "demonstrate that thinking about favored (but not non-favored) television programs buffers against drops in self-esteem and mood and against increases in feeling of rejection commonly elicited by threats to close relationships" (352). Prior to his mother's arrival, Jeffrey had been watching morning children's programming, shows which were enormously popular in the 1970s in America. Derrick et al. argue:

> [C]ommonplace technologies, such as narrative fiction, television, music, or interactive video games, can also provide the experience of need fulfillment. . . . [B]eloved books, television programs, movies, music, or video games potentially serve as "social surrogates," leading to an experience of belongingness even when no real, bona fide belongingness has been experienced. (352)

In addition to the television playing in the background, Jeffrey's mother sits on a chair that she has moved to be next to the bed where he is sitting when Jeffrey whimpers. "Crying," explains John Newman, is a universal vocalization in human infants, as well as in the infants of other mammals" (155). Researchers in the field of relational biology argue that crying (or whimpering) is only one part of a two-part system. Evidence suggests that crying behavior in children serves to elicit parental response. Newman demonstrates that the anterior cingulate gyrus, the amygdala, and other forebrain areas of the mother "light up" in response to the cries of her child (155). Siegel explains that Jeffrey's developing brain is able to use emotional state of his mother to help organize his own state (*Developing* 70). In other words, the brain of Jeffrey's mother is responding to Jeffrey's whimpering by providing comforting behaviors that soothe her son. Seigel argues that at a cellular level, "this focus on the mind of another person harnesses the neural circuitry that enables two people to 'feel felt' by each other" (xiv). The areas of Jeffrey's brain stimulated by the soothing behaviors of his mother towards himself are rich in opiates. Activation of Jeffrey's amygdala and anterior cingulate gyrus stimulate endogenous opiate production in his body. Through a profoundly complex internal network of neurotransmitters and neuro-receptors, the youngster is able to experience the benefit of his endogenous opiate system and remains calm during an otherwise traumatic event.

In addition to the physiologic aspects involved in the comforting presence of his mother and the social surrogates of familiar television characters, Roberta, the medical technologist, has respected Jeffrey's wish to be informed when she would poke him. This element of control, although seemingly minor, is significant in the way that the child behaves and experiences the situation. Palliative care physicians Gwynneth Down and Jean Simons discuss the importance of communication and shared decision making with the terminally ill child in their chapter "Communication" published in 2006 in the *Oxford Textbook of Palliative Care for Children*. They claim: "Young patients who are seriously debilitated by chronic or life limiting illness, may find themselves disempowered and excluded" (36). Down and Simons highlight the oft overlooked possibility that a child as young as five-year-old Jeffrey may well be competent to participate in some aspects of his own care:

> [I]n the case of children who themselves have experienced serious illness and bereavement or who are undergoing their own illness process, such children form a mature competence and understanding at a much earlier age than health professionals would normally consider appropriate. . . . (36)

In this situation, Jeffrey is able to successfully exercise both voice and agency over his situation, and to her credit, Roberta responds by attentively listening and respecting Jeffrey's request to be informed prior to poking him. Using his voice to alter his situation, Jeffrey has expressed what Pufall and Unsworth refer to as "that cluster of intentions, hopes, grievances, and expectations that children guard as their own" (8). Pufall and Unsworth define agency to be complementary to voice in the development of children. (9) They explain the concept of "agency":

> By agency we refer to the fact that children are much more self-determining actors than we generally think. They measure issues against their own interests and values, they make up their own minds, they take action as a function of their own wills - that

> is, if the more powerful class, the adults, allows them to do so. (9)

This somewhat simple interaction between an adult and a five-year-old sick little boy gives the youngster some modicum of control over his situation and is an important part of his coping mechanism. To wit, Jeffrey goes through this traumatic experience with only minimal discomfort.

Bluebond-Langner describes Jeffrey watching every move that Roberta makes. His attention is focused on the procedure, yet he seems to register no particular pain response to it. It is certainly possible that Jeffrey has a high tolerance for pain and thus is not bothered by this discomfort. Myriad ethical reasons exist as to why research into the objective experience of pain in children cannot be conducted. Thus, there is a paucity of data in this field of pediatrics. However, extensive research into the experience of pain in adults exists. Such studies give one hope that the mechanisms delineated in the adult population will ultimately be able to be extrapolated to the world of children, thus affording sick children the ability to learn to control their pain.

Data from a seminal pain study conducted on adults in 1990 by researcher Arnoud Arntz and his colleagues at the Department of Medical Psychology at Limburg University in the Netherlands explored the influences of anxiety and attention on pain perception. Their research demonstrated that

> [w]hen the [subject] is anxious about the causes or the course of pain, he/she may pay a lot of attention to the pain, thereby increasing the pain. However, the present study indicates that in such instances the critical pain increasing factor is attention, rather than anxiety or anxiety-related arousal. Pain-related anxiety merely motivates the [subject] to direct attention to the pain. (48)

This work stands in contradistinction to the more recent findings of researchers at Stanford University who, using functional Magnetic Resonance Imaging, have demonstrated that adults are able to decrease the felt experience of pain by increasing attentional focus during an fMRI on the image of the brain region which perceives pain. In 2005, in an article "Control over Brain Activation and Pain Learned by Using Real-time Functional MRI" published in *Proceedings of the National Academy of Sciences of the United States of America,* Researchers R. Christopher DeCharms and his colleagues at Stanford University demonstrated that

> individuals can gain voluntary control over activation in a specific brain region given appropriate training, that voluntary control over activation in the rACC35 leads to control over pain perception, and that these effects were powerful enough to impact severe, chronic clinical pain. (18626)

One can expect that relief from both emotional and physical pain will be found in a highly individualized network of coping strategies in which some measure of attention is balanced with some measure of distraction. The ideal will be finding a technique with enough flexibility and success such that it can be successfully tailored to suit the individual needs of the suffering child.

Many health care workers as well as parents of sick children around the world have little doubt that the children can be made more comfortable by the presence of a comforting, calm, and familiar attachment figure. For all children, the experience of pain and the

perception of pain involves a profoundly complicated network of physiological processes that are worthy of a great deal of study. But the pain experienced in children living at the end of life is complicated by additional factors, including the anxiety of their parents, the length of stay in the hospital, and the disruption to their social lives, to mention just a few. In their text *Bringing Pain Relief to Children,* palliative care physicians John J. Collins and Gerry Frager explain:

> The pain experienced at the end of a child's life is a complexity of physical, psychological, social, spiritual, and other factors. All factors in this matrix must be considered and treated to affect a successful system of care for a dying child. (59)

Earlier, I tendered the hypothesis that perhaps Jeffrey has a high pain tolerance. The next scene offers insight into this possibility. In this scene, one of Jeffrey's doctors has called Mrs. Andrews into the hallway, outside of Jeffrey's hearing. The doctor has informed Jeffrey's mother that she (Dr. Ellis) will need to perform a bone marrow aspirate on Jeffrey, a procedure recognized in the medical world to be extremely painful. An article published in 2005 in the *Journal of Pediatric Hematology/Oncology* by Egidio Barbi and his colleagues explains: "A child with leukemia undergoes an average of 20 procedures such as lumbar puncture36 and bone marrow aspiration through the course of illness" (639). Due to the frequency with which leukemic children must undergo painful procedures such as a lumbar puncture or a bone marrow aspirate, groups of anesthesiologists such as Barbi et al. focus attention particularly on how one might successfully sedate a child during procedures such as these. According to Bluebond-Langner, neither Jeffrey nor his mother has been given any indication of the intensity of the pain that Jeffrey can expect to experience, nor have they been informed that any sedation which might be administered during this procedure.

The first of many painful tests

> The scene begins as Mrs. Andrews returns to Jeffrey's room after having been told by Dr. Ellis that Jeffrey will undergo a bone marrow aspiration in the treatment room down the hall and again sits on the bed with her son.
>
> JEFFREY: What did she want?
>
> MRS. ANDREWS: They are doing to do a test to see what is wrong with you.
>
> JEFFREY: Will it hurt?
>
> MRS. ANDREWS: I don't know, Jeffrey. (Rubs JEFFREY's forehead and brushes away his hair.)
>
> JEFFREY: (turns away and stares fixedly at the TV through the rest of the program.)
>
> Note that again, Jeffrey has turned to the television for distraction from his anxiety.
>
> (After a while, NURSE LYONS enters with a wheelchair.)
>
> NURSE LYONS: OK, Jeffrey, I'm going to take you down to the treatment room.
>
> JEFFREY: (Whimpers) What are they going to do?
>
> NURSE LYONS: A bone marrow.
>
> JEFFREY: Will it hurt?

NURSE LYONS: Well, maybe a little at first. But they will give you something. (Lifts JEFFREY out of bed and into the wheelchair) All set? Mrs. Andrews you can wait here or out in the hall if you want.

MRS. ANDREWS: I'll wait here (smiles).

(NURSE LYONS and JEFFREY go down to the treatment room.) (Bluebond-Langner 28)

The nurse knows that this procedure will be exquisitely37 and traumatically painful for Jeffrey, yet she withholds that information from him. Jeffrey has been separated from his mother, his primary attachment figure; he has been told that the procedure will hurt "maybe a little at first" but not at all to the true extent; and he has been provided with nothing to distract him from his anxiety. Bluebond-Langner found that many of the children on the floor "commented on how it seemed that if the doctor doesn't want your mother around, he takes you in the treatment room" (137). At this point the reader has no indication that Jeffrey is aware of this bit of "common knowledge."

Treatment room on the thirteenth floor, later that morning, 11:15 a.m.

(DR.ELLIS is standing at the examining table with assorted medical students and interns gathered about her.)

(NURSE LYONS wheels JEFFREY into the treatment room and closes the door.)

DR. ELLIS: OK, let's get you up on the table and over on your tummy.

JEFFREY: (Whimpers as two students walk over to lift him onto the table.)

(NURSE LYONS leaves.)

DR. ELLIS: This won't hurt. All I'm doing is feeling around your hip and then I'm going to wash it up. (Turns from JEFFREY, puts on gloves, turns back and begins to wash hip area with iodine) I'll tell you when I put the needle in (gets syringe ready).

JEFFREY: (Begins to howl).

DR. ELLIS: OK, Jeff. (The needle is in.)

JEFFREY: (Bellows) Take it out!

DR ELLIS: I'm just numbing it. It will be out soon.

JEFFREY: Is that all now?

DR. ELLIS: (Feels around) No, not yet. (Makes aspiration.)

JEFFREY: (Shrieks.)

DR. ELLIS: (Nods to a MEDICAL STUDENT.)

MEDICAL STUDENT: (Holds JEFFREY's arms down.)

DR. ELLIS: OK, now Jeffrey, you really have to hold still now. (DR. ELLIS removes the needle and hands it to the technician.)

. . .

DR. ELLIS: (Turn[s] back to JEFFREY)Do you want a Band-Aid?

JEFFREY: (Nods yes.)

DR. ELLIS: (Takes a Band-Aid from the procedure tray and puts it on JEFFREY) I think you can take him back to his room now. Thank you, Jeffrey. Why don't you see that they give him some juice or something when he gets back? (Turning to JEFFREY) Would you like something?

JEFFREY: (Sniffles and passively nods.)

(Bluebond-Langner 28-29)

This scene is so fraught with anxiety that it is difficult to imagine the reader who is not deeply affected by the intensity of the anxiety felt by this poor child as he is separated from his mother, lied to by the wheelchair attendant, lied to by the physician, and then undergoes a procedure causing deep and excruciating bone pain. Bluebond-Langner communicates a powerful sense of foreboding as this child is wheeled down to the treatment room. The youngster is frantic with both anxiety and pain and has been given no chance to prepare emotionally for this necessary procedure. In the hospital where Jeffrey is a patient, procedures such as a bone marrow aspiration were and are occasionally carried out at the bedside of a patient. But, Bluebond-Langner notes,

> Some doctors did remark that they preferred carrying out procedures in the treatment room, because it was easier to keep the parents out and the children were easier to manage. Or, as one intern remarked, "If you take them in there you don't have to ask the parents to leave. It's a lot easier without them." (137)

Anesthesiologist and pediatrician Brenda McClain, Associate Professor at the Yale University School of Medicine, notes that it is only quite recently that pain experienced by children and more particularly, by hospitalized children, has become a focus of study:

> The magnitude of the problem of inadequate pain treatment in children was brought to light in the late 1980's when studies in various institutions independently confirmed that children were undertreated despite the caregivers' recognition of the presence of pain. (2)

Statistics published in the 2003 text *Pain in Infants, Children, and Adolescents* highlight the enormity of the problem of pain in youngsters who are suffering with cancer:

> Information was acquired about symptom characteristics from a heterogeneous population of children with cancer 10 to 18 years of age at Memorial Sloan-Kettering Cancer Center in New York. Children were asked about their symptoms during the preceding week. Pain was the most prevalent symptom in the inpatient group (84.4%) and was rated as moderate to severe by 86.8% and highly distressing ("quite a bit to very much") by 52.8% of these children. Pain was experienced by 35.1% of the outpatient group, of whom 75% rated it as being moderate to severe and 26.3% rated distress as "quite a bit to very much."

(Schechter et al. 518-19)

These numbers reflect the statistics at Memorial Sloan-Kettering Cancer Center, a center recognized worldwide for its leadership in all aspects of cancer care, and yet, the number of children who suffer with severe pain during their treatment exceed an alarming 75 percent.

As recently as 2008 Dr. Donna L. Johnston, pediatric hematologist/oncologist at Children's Hospital of Eastern Ontario (Canada), and her colleagues analyzed the availability of pediatric palliative care to children with cancer. The results were not encouraging. Their article, "Availability and Use of Palliative Care and End-of-Life Services for Pediatric Oncology Patients," published in *Journal of Clinical Oncology* highlights the global paucity of obtainable pediatric pain management:

> Despite the well-established benefit of pediatric palliative care, it is only offered in 58% of COG38 institutions caring for children with cancer. In an era where the benefit of palliative care has been clearly established, this number should approach 100%. (Johnston et al. 4646)

Tragically, children living with cancer only a few decades ago suffered extreme levels of pain at a time when the treatment of pain in children was not recognized as being particularly worthy of treatment. It is heartening to learn that as of December 2, 2010, leaders from more than 220 children's hospitals and related organizations will merge the three existing large organizations dedicated to the medical care of children (the National Association of Children's Hospitals and Related Institutions [NACHRI], the National Association of Children's Hospitals [NACH], and the Child Health Corporation of America [CHCA], into a single entity. The mission of this consortium is described in a press release of the same date:

> The new organization will build on the strengths of more than 80 years of combined experience. . . . . Our vision - as a single organization - is to be the catalyst for improving child health and children's health care through assessment, advocacy and action. (Ray, unpaginated)

As promising as the increased attention on children's medical care might be, it is evident from the numbers cited above that barely half of the children suffering with the pain of terminal illness have access to adequate pain relief measures. Unfortunately, Jeffrey's experience with pain continues to be more the norm than the exception. Bluebond-Langner resumes her observations as Jeffrey is returned to his room after undergoing the bone marrow aspiration.

Up to this point in his hospitalization, Jeffrey has been subject to two painful procedures, the finger stick and the bone marrow aspiration. Current research suggests "neurons in the amygdala can 'learn' to respond to stimuli associated with pain, and after such learning, these stimuli evoke a fearful response" (Bear et al. 574). In 1998, anesthesiologists and pediatricians Steven J. Weisman (Yale University), Bruce Bernstein, and Neil Schecter (the latter two both affiliates of the University of Connecticut) studied "the effect of inadequate analgesia for painful procedures (bone marrow aspiration, lumbar puncture, or both) on the pain of subsequent procedures" (147). The group explains: "[M]any children had to experience these procedures without adequate pain control and with the impression that they would have to endure a seemingly endless series of them in the future" (Weisman et al. 147). Pain in the pursuit of a cure is a complicated concept. The child must not only endure terrible suffering but must also try to make sense of the idea that his or her parents are allowing strangers to do terribly invasive and painful things to his or her body. Some will blame their parents and others perhaps not.

Professor of Anesthesia and Psychology and Senior Clinical Research Scholar at Dalhousie University G. Allen Finley and his collaborators discuss the effects of cumulative pain on a terminally ill child:

> Children with terminal illness experience pain from the cumulative effects of progressive disease, invasive procedures, treatment, and psychological distress. Special challenges arise in managing their pain and the side effects of pain treatment . . . . (3)

This disturbing finding is part of a larger movement in which clinicians are exploring each aspect of pain as perceived and experienced by children living with serious illness. Due to the powerful emotional memories evoked by exquisitely painful experiences, these children are at risk for significantly increased anticipatory distress when faced with upcoming medical procedures. Recall that the International Association for the Study of Pain defines pain as including, "emotional experience associated with actual or potential tissue damage" (Loeser and Treede 473). The threat of future pain adds to the trauma being experienced by these youngsters.

Ronald L. Blount, Professor of Psychology at West Virginia University, writes, "[A]nticipatory distress prior to painful procedures is highly predictive of distress during subsequent phases of a medical procedure, although this relationship is not necessarily due to learning processes" (Blount et al. 172). It is widely recognized that the perception and interpretation of a painful stimulus involves emotional, physiologic, cognitive, and social factors, all of which influence the way a painful stimulus is perceived (Weisman et al. 147). What is somewhat surprising about the study performed by Weisman's group is the demonstrable result regarding the efficacy of future pain relief in these children: "Inadequate analgesia for initial procedures in young children may diminish the effect of adequate analgesia in subsequent procedures" (147). This would indicate that physiology of the child has been altered in some way by the experience of extreme pain leaving him or her with not only an increased sensitivity to pain but also physiologically more resistant to anesthesia.

The problem which results from iatrogenically39 induced resistance to pain relief is the ever increasing level of anesthetic required to provide these children with adequate pain management. Anesthetics are a wonderfully useful class of pharmaceuticals, but as with all medications, anesthetics are not without their side effects. The higher the anesthetic dosing, the greater the chance of the child experiencing serious side effects from the medication itself, such as changes in blood pressure, changes in heart rate and rhythm, a heart attack, or a stroke. The illness of the child, in conjunction with the many medications and procedures being done in an effort to save the life of the child, creates a challenging physiologic domino effect. The difficulties posed by future episodes of anesthesia are a part of a larger picture.

Current research suggests that these children are not only under attack by their disease process. A growing body of evidence is accumulating to support the idea that many children who have undergone highly distressing and painful procedures are at significant risk for developing Post-Traumatic Stress Disorder.40 Indeed, the *Diagnostic and Statistical Manual of Mental Disorders*, a publication of the American Psychiatric Association, identifies children who have been diagnosed with life limiting illnesses as

being at increased risk for Post-Traumatic Stress Disorder, with all of the attendant co-morbidities of this syndrome. ("Post-Traumatic Stress Disorder," *DSM-IV TR*)

Research conducted by psychologist David K. Payne and his colleague, psychiatrist Mary Jane Massie (both of Memorial Sloan-Kettering Cancer Center in New York) found that cancer patients may experience symptoms of Post-Traumatic Stress Disorder "similar to those reported by individuals who have been subjected to other types of trauma (e.g., combat, rape, or natural disaster)" (67). They argue:

> Patients with this disorder may repeatedly re-experience frightening events associated with their cancer diagnosis or treatment and have a chronic exaggerated startle response, nightmares, or autonomic41 hyperactivity. (67)

University of Buffalo researchers Sarah Palyo and J. Gayle Beck also report: "The symptoms of PTSD and pain frequently co-occur following a traumatic event" (121).

A lecture given on October 5, 2010 at the Yale University Center for Bioethics by Andrés Martin, Professor of Pediatric Oncology Psychosocial Services at Yale, focused on the ways in which the complexities of the myriad challenges faced by terminally ill children are being treated in his home institution:

> Psychosocial rounds [are held on a regular basis] to help kids during what surely must be one of the most anxiety ridden and traumatic events. I mean a child with cancer gets a treatment which even if it may cure you, will be hell for the next three years. So, there is a lot psychologically that we have to do. (14:24)

Over the course of their lifetime, children who undergo treatment for childhood cancer are subject to repeated finger sticks and venipuncture,42 approximately twenty bone marrow aspirations and/or lumbar punctures, repeated insertions of intravenous lines to deliver medications, and many other invasive procedures too varied and extensive to name. Researchers Jacek D?biec and Joseph LeDoux, at the Center for Neural Science at New York University point out: "Intrusive memories resulting from an emotional trauma are a defining feature of posttraumatic stress disorder (PTSD)" (521). Contrary to Blount's conjecture that learning is not involved in anticipatory distress, functional studies suggest that physiologic alterations develop in a child after being traumatized that indicate some level of cellular learning has occurred. Further, current theory supports the seminal roles of the amygdala, the hippocampus,43 and the prefrontal cortex in accomplishing the task of memory storage as well as in the production and modulation of the stress response (Elzinga and Bremner 1). Memory formation and consolidation is an integral aspect of the learning experience.

Memory, the retention of learned information, is subdivided into two different types of recall: Declarative, or *explicit memory* and Nondeclarative, or *implicit memory*. Declarative memory refers to one's memory for facts or events such as where one might find Africa on a map or what one ate for breakfast. Declarative memory results from a conscious intent to learn, whereas Nondeclarative memory includes those memories that result from the direct experience of something such as riding a bicycle or learning to play a musical instrument. Children who have experienced repeated painful emotional and or physical events frequently exhibit a learned fear response when faced with the possible recurrence of such pain. This is a type of Nondeclarative memory. The learned response

to a fearful situation is a type of Nondeclarative emotional memory recognized to be processed in the amygdala (Bear et al. 727).

The relationship between fear and the somatic responses during a fearful event has long been recognized (e.g., increased heart rate, increased respiratory rate). However, it is only in recent years that scientists have had the tools to observe real time activation of the brain regions *in vivo* as someone is actually exposed to painful or fearful stimuli. Positron Emission Tomography (PET), a type of functional imaging that detects changes in blood flow to regions of the brain, and functional Magnetic Resonance studies (fMRI), an alternate technique for measuring blood flow changes in the brain, were carried out on adult subjects as they experienced fear-inducing stimuli in the safety of a laboratory setting. Results demonstrated that "neural activity in the amygdala is consistent with a role in processing emotions, especially fear" (Bear et al. 574). Bear continues: "Although the amygdala is not thought to be a primary location memory storage, it does seem to be involved in forming memories for emotional events" (574).

Figure 6.2 shows the placement of the amygdala, the hippocampus, and the cerebral cortex. Note that both of these brain regions lie within the limbic system, the system recognized as being centrally involved in the processing of emotions. When a child is stuck with a needle, nociceptive pain receptors in the skin are stimulated to send signals through the peripheral nervous system to the spinal cord and up to the brain region called the thalamus. The thalamus processes the information and

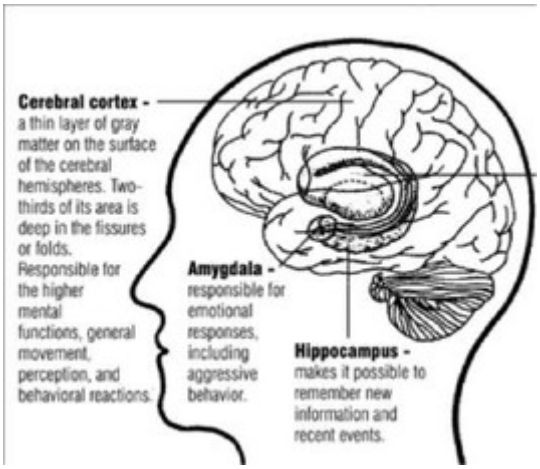

Fig. 6.2 Cerebral cortex, amygdala, hippocampus

Source: Adapted from "NIMH · Research into Causes and Treatment of Autism Spectrum Disorders"

projects it out into the cerebral cortex where the signal is further processed by the individual (see fig 6.3).

These figures illustrate that the brain regions activated during the child's experience of fear are not identical to those regions which are activated during the

experience of pain. The regions are not identical, nor are experiences of pain and fear

identical. What is clear from these figures is the overlap of brain regions and function in

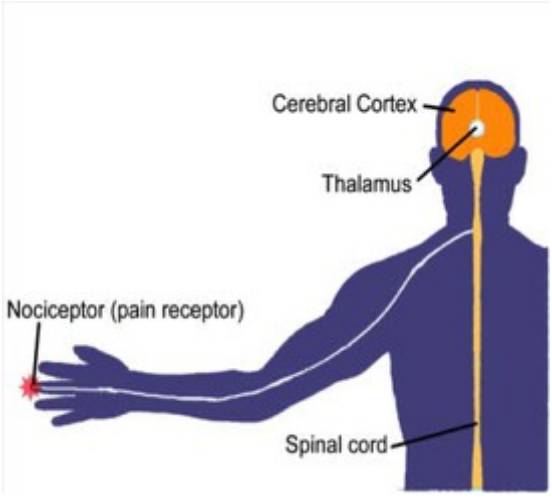

Fig. 6.3. Processing of painful stimuli occurs in the cerebral cortex.

the experience of strong emotions, painful experiences, and the consolidation of implicit memory. Allan Basbaum, Chair of the Department of Anatomy at the University of California San Francisco, concurs: "The areas of the brain that light up when you have a powerful emotional response to an external stimuli are not that different from the areas of the brain that light up when you have a pain experience" (45: 27). Many regions of the brain are involved in both emotional memory processing and pain perception and unfortunately, the biochemical overlap in these brain regions is beyond the scope of this project.

Further complicating how one can understand the felt experience of pain is the subjective nature of one's perception of pain. Research in the field of pain has clearly demonstrated that nociception, perception, emotion, and subjective experience are all involved in pain perception, and thus, are all involved in producing one's response to pain. All of the many factors involved in the painful experience contribute to the ways in which ones brain processes pain. Basbaum explains:

> There is no one pain area in the brain that you can cut out . . . , there are no areas that correlate with the intensity and with the location. But, there are very different areas that light up or are active in association with the emotional power of the pain. And it's what we call part of the limbic or emotional cortex . . . , the more unpleasant the experience, the more the [Anterior Cingulate Gyrus] lights up. (46:00-46:23)

Researchers B. M. Elzinga and J. D. Bremner in the Department of Psychology at the University of Amsterdam further discuss the integral nature of implicit and explicit memory as they inform the relationship between PTSD and the experience of pain:

> Implicit memory may underlie fear conditioning and re-experiencing phenomena in PTSD. Explicit memory is related to declarative memories of the trauma that contain explicit information about the sensory features of the situation, the emotional and physiological reactions experienced, and the perceived meaning of the event. (2)

Unfortunately, the meaning of increased levels of pain in these children may imply a worsening of the disease, resulting in more aggressive treatment and/or death is almost inconceivable. The extent of suffering that these children must endure over the course of

their illness is discussed by Yehuda Nir, Associate Clinical Professor in Psychiatry at Cornell Medical College. Nir describes the many complications of chemo and radiation therapy (e.g., nausea, vomiting, mucosal ulcerations, loss of hair):

> The diagnosis of cancer plunges a child into this new medical reality, creating a series of overwhelming problems for young patients and their families. The issues are both physical and emotional in nature. Although initially distinct, in the course of the child's illness, the physical and emotional components tend to interdigitate, often becoming almost indistinguishable from one another. (123)

Jeffrey was hospitalized twenty years prior to the work of the many clinicians who have dedicated a great deal of research into the long-term effects of pain in childhood. He was living and dying in the Midwestern United States at a time when most children diagnosed with leukemia did not live into adulthood, and little attention was given to the suffering of children. Even now, in twenty-first-century America, many children die of cancer-related diseases without access to appropriate palliative care. In 2007, the National Hospice and Palliative Care Organization (NHPCO) joined with the Children's Project on Palliative/Hospice Services to create "NHPCO's Standards for Pediatric Palliative and Hospice Care: Advancing Care for American's Children," signaling a significant move by the medical community towards addressing the needs of terminally ill children. It is a moral and ethical imperative that researchers continue to study the dying trajectories of children. It is of the greatest urgency that we as a society continue to make progress in recognizing when a youngster is experiencing overwhelming pain and that we take all of the measures available to provide adequate pain management for them. Myriad reasons exist for why these measures are not uniformly provided to all children and adults living in the United States today. One reason for this might include financial constraints on individuals and/or hospitals such that institutions are ill-equipped or not equipped at all to administer pain medication. Other reasons include inadequate training in pain management on the part of the primary clinician and/or lack of access to quality medical care for individuals living in medically underserved areas.

We now return to Jeffrey, a profoundly traumatized and changed five-year-old boy.

> *The rest of the afternoon passes with little dialogue from Jeffrey. The reader is told that his mother is in his room when he returns from the treatment room and that his father plans to come after lunch. Bluebond-Langner records nothing more of Jeffrey's story on this day.*

JEFFREY'S room, the following morning

> (JEFFREY is propped up in bed playing with a stamper set on his tray and watching TV while being transfused, MRS. ANDREWS sits by the bed.)
>
> NURSE STEVENS: (On entering the room) Good morning Jeffrey. Just want to check on how the blood is doing.
>
> JEFFREY: See my mommy's red nose? That's from me. That's from crying. Everybody cries when they see me. I'm pretty sick, you know.
>
> NURSE STEVENS: (Checking blood pressure) But you'll be better soon.
>
> (Silence.) . . .

(NURSE STEVENS leaves; MYRA enters the room, several minutes later.)

MYRA: Hi, Jeffrey.

JEFFREY: (Puts down the stamper) See my mommy's red nose? That's from me. That's from crying. Everybody cries when they see me.

(Bluebond-Langner 33)

Through the cumulative experiences of the previous two days, and through observation of the reaction of his mother and others, Jeffrey has learned that his illness is serious (166). Bluebond-Langner describes the time when a child recognizes that he or she is seriously ill as the first stage in the child's Acquisition of Factual Information about the Disease (166).

Moments later in Jeffrey's room, Mrs. Andrews responds to Jeffrey's growing awareness that his mother has been crying

MRS. ANDREWS: (Aside, to MYRA): I try not to cry in front of him. But he knows. . . . It all happened so quickly and I didn't think it would be anything like leukemia. . . .

JEFFREY: (Continues to stamp.)

MRS. ANDREWS: . . . I never thought it was really leuk - (catches herself). A neighbor's child died from it and it started the same way. (Cries and wipes eyes) I wonder how much I should say in front of him. He probably doesn't understand all of it though. But there are lots of sick children around here. A lot of them look a lot worse than Jeffrey . . . .

(Bluebond-Langner 34-35)

We clearly see here an effort on the part of Mrs. Andrews to protect Jeffrey from knowing the severity of his illness. Waechter describes a time in the early to mid-twentieth century when shielding the children was the norm:

> Physicians widely counseled parents to maintain a sense of normality in the family and shield children from the realization of the seriousness of their illness, and assumed a cheerful manner that things would soon be well (51).

In 1969, investigators at the Langley Porter Neuropsychiatric Institute and the Department of Pediatrics at the University of California, San Francisco Medical Center conducted interviews with parents of twenty-three children who had died of leukemia between 1964 and 1966. The research supported the following hypothesis:

> Most children above four years of age, although not told directly of the diagnosis, presented evidence to their parents that they were aware of the seriousness of their disease and even anticipated their premature death.
>
> . . . Younger children, though not expressing fear of death per se, manifested concern about separation, disfigurement or hurt. (Binger et al. 415)

Since that time, medical and behavioral clinicians have widely acknowledged that terminally ill children are often aware of what is happening to them long before their parents or doctors share the information with them. The young authors of *There is a*

Rainbow Behind Every Dark Cloud explain that they had questions but were uncomfortable asking certain questions of their parents:

> We knew certain questions would bring tears to our parents' eyes so we learned not to ask those questions. All of us seemed to want to protect our parents. At the same time, we wanted to be physically close to our parents most of the time. Lots of times we didn't want them out of our sight. (Dezendorf et al. 31)

Unfortunately, not being able to pose the "big" questions such as questions about life and death to the adults the child trusts the most leaves the child feeling terribly alone with his or her worries and concerns. The children in California continue:

It was hard for most of us to talk about how we felt inside. And it was hard for us to find someone who would really listen without being afraid. Sometimes the questions we were afraid to ask were: "Am I going to die?" "What is dying like?" (Dezendorf et al. 31)

Fortunately, more modern texts such as *The Oxford Textbook of Palliative Care for Children* (2006) highlight the importance of open and honest communication with terminally ill youngsters as a means of improving end of life care:

> Over the last 20 years, evidence of the benefits of talking with children openly about illness is increasing. Sharing information in chronic illness has been linked to less depression in ill children . . . . An open approach to disclosure in childhood leukaemia [sic] was also shown to enhance psychological adjustment in children and their families. 'Not telling' did not reduce stress in the children, but may have increased their isolation and anxiety. (Down and Simons 33)

Margaret L. Stuber, Associate Professor in the Department of Psychiatry and Behavioral Sciences and Director of Pediatric Consultation-Liaison Psychiatry44 at University of California, Los Angeles, and her colleague Brenda Bursch concur with Down and Simons:

> [C]ontrary to the initial assumptions, open communication about death appears to be beneficial to children. Many concerns can be voiced, eliciting support, reassurance about unwarranted worries, and practical assistance with the immediate issues. Such communication appears to help prevent depression and reduce isolation. (256)

Although unspoken, it is clear from Jeffrey's comments to Nurse Stevens and to Myra that he has become aware that he is seriously ill. The day after his blood transfusion, Jeffrey anxiously awaits discharge from the hospital. He and his mother prepare to leave, but first they must stop at the nursing station.

> (JEFFREY and his mother stand before the nurses' station as they had when they entered the hospital. NURSE RICHARDS walks forward with a bottle of pills in her hand and stands by the receptionist.)
>
> NURSE RICHARDS: (Holding out the bottle) You know that Jeffrey is supposed to get four of these four times a day, it's on the bottle. He's to go to the oncology clinic on Monday morning. Here is your clinic card. (hands MRS. ANDREWS the clinic card and the medication). You stop at 103 first and they will do a blood count. Then you go to the pharmacy line and wait for the prescription. Wait a minute, let me check on that. (Walks to the back of the nurses' station and talks to DR. ESTERSON and

returns) No, you don't have to go to the pharmacy; his doctor, Dr. Ellis, will have it. Then you go up to the tumor clinic. It's on the third floor, past X-ray. There'll be signs when you get off the elevator. I guess that's it then. Do you have any questions?

MRS. ANDREWS: No. Thank you.

NURSE RICHARDS: Jeffrey, goodbye.

JEFFREY: (Looks up) 'Bye.

MRS. ANDREWS: Is there anything else we have to do?

NURSE RICHARDS: No, that's it.

. . .

(MRS. ANDREWS and JEFFREY turn and walk toward the elevator with a purposeful step.)

NURSE RICHARDS: I wonder how long it will be before we see him again.

RECEPTIONIST: (Raises her eyebrows and nods knowingly.)

(Bluebond-Langner 42)

While reading the instructions given to Mrs. Andrews, even I was struggling to figure out where Jeffrey and his mother were to go and what they were to do prior to leaving the hospital. Bluebond-Langner comments: "In the face of terminal illness, mothers and fathers are systematically stripped of the[ir] parental roles and the consequent pleasures. . . . The parents saw themselves as powerless before the disease, the doctors, the machines used for treatment, and, most important, their children . . . (214-15).

In the above scene Jeffrey appears to have gotten accustomed to having his finger pricked for blood; as a result he neither whimpers nor cringes when Nurse Richards says that he will have to have his blood checked one more time prior to leaving the hospital. Indeed, he appears to give no response at all.

Twelve-year-old David Martin, one of the young authors of *There Is a Rainbow Behind Every Dark Cloud* (Dezendorf et al.), drew into a cartoon his feelings about having multiple needle sticks. The image is that of a child with fifteen Band-Aids all over his arms, his legs, and his face with the boy speaking the words: "when are they going to stop the shots I'm sore[sic]." In his drawing, there is a nurse with a needle squatting by his toe saying "mabey [sic]there some blood in the big toe" (Dezendorf et al. 22). Thirteen-year-old Mike Stevens of the same group drew an enormous syringe with a fish hook on the end. His words: "Some needles felt like fishhooks" (Dezendorf et al. 24).

Bluebond-Langner writes that Nurse Andrews has handed a prescription to Jeffrey's mother. In this account, the particular medication is not specified; however, it is noteworthy that the medical team taking care of the youngster has presumed that a five-year-old child is capable of swallowing a tablet or a capsule. And not just one tablet, but four tablets four times a day. In their article "Pill Swallowing Ability and Training in Children 6 to 11 Years of Age," members of the Allergy and Asthma Medical Group (San Diego, CA) Eli Meltzer, M. J. Welch, and N. K. Ostrom explain: "There is very limited information on when healthy children can be expected to learn to swallow a pill"

(725). But, their study of 124 children found that 57 of the children were able to swallow a small tablet, while 47 were able to learn, and 11 children were not able to learn at all (725). Prior to his diagnosis, Jeffrey was a healthy child, and we are given no indication as to his pill-swallowing ability. However, four pills four times a day would tax even the most attentive of patients. Fortunately, as John Martin, pediatric oncologist and Founding Chairman of the United Kingdom's Children's Cancer Study Group notes, "Paediatric oncology is a rapidly developing specialty and has paralleled a time of major improvement in the prognosis for children and adolescents with cancer [including] developing new and more effective treatment schedules" ("Foreward" xv). Although the schedules of medication are perhaps becoming more effective and more manageable, the medications themselves have many deleterious side effects which the children must endure in pursuit of a cure.

In 2010, most children living with Acute Lymphoblastic Leukemia, the most common type of childhood leukemia, receive treatment protocols developed by the Children's Cancer Group or the Pediatric Oncology Group (Gerstner unpaginated). Currently, children presenting to the hospital for initial diagnosis and treatment may be given blood transfusions, antibiotics, and chemotherapeutic agents such as vincristine, prednisone, L-asparaginase, Doxorubicin, daunorubicin, or cyclophosphamide. Other drugs may be added to combat potential complications of the disease and/or the treatment. These particular drug cocktails, as they are known in the medical world, have some devastating side effects. Children report nausea, general malaise, constipation, abdominal pain, headache, fatigue, and of course, the particularly devastating change in appearance, hair loss. The California children write:

> After we were told what our sickness was and that we might die from it, we were mad that it happened to us. The "not knowing" if we were going to get well really bothered us. Hearing that we were going to get lots of shots and lose our hair also scared us.
>
> We did not look forward to getting X-ray therapy and chemotherapy because lots of times it made us feel worse, even though we knew it was given to make us well. (Dezendorf et al. 31)

The protocol for inducing remission includes dosing the child with the cytotoxic45 chemotherapeutic agent methotrexate, given intrathecally.46 Information on the Memorial Sloan-Kettering Cancer Institute website informs patients: "The procedure to do this, a lumbar puncture, is repeated up to 18 times during the early and later phases of treatment" (Gerstner). The trauma of repeated lumbar punctures and bone marrow aspirations has been discussed earlier. Chemotherapeutic agents work by poisoning all fast growing cells in the body. The body of a child has many such cells, and in the fight for life, the youngster must endure the effects of iatrogenically induced poisoning. The specific mechanisms of cancer treatment are outside of the scope of this project; however what must be recognized is that these children are living in pain, frequently with general malaise, teetering on the brink of life and death, and returning to clinics regularly for tests and physical examinations to assess the success of the treatment.

Amidst all of this physical and emotional adversity, some youngsters, such as the young authors of *There Is a Rainbow Behind Every Dark Cloud, s*peak of their ambivalence

about returning to the normalcy of school: “Most of us had two feelings at the same time: wanting to go back to school and being scared of going back”

(Dezendorf et al. 45). Sometimes a child is well enough to return to school, but due to the immune suppression47 caused by cytotoxic chemotherapies, they must continue to be very cautious to stay away from any sick children. Among other things, the need for physical distancing from friends, family, and classmates who might be ill with only minor ailments (e.g. the common cold), may cause feelings of social isolation in these young cancer sufferers. The California children discuss the emotional complications that they faced when returning to school:

> It was really tough going back to school when you didn’t have any hair. All the kids asked us, “What happened?” “Where is all your hair?” “Why are you wearing that hat or that wig?”
>
> Sometimes we met some guy who acted like a jerk and tried to pull our hat off. Sometimes we ended up fighting.
>
> We didn’t like feeling different. We also felt dumb because we missed so much school and we thought we would never catch up.
>
> We were also mad because we missed out on sports.
>
> The kids kept asking us what was wrong with us and lots of times we didn’t know what to say. So lots of times we didn’t say anything. We didn’t feel like talking about it. (Dezendorf et al. 45)

One wonders how a youngster such as Jeffrey, who is living on the cusp between five and six years old might process all of the many experiences of living with cancer.

According to a study published in the *Journal of Developmental and Behavioral Pediatrics*, drawings and stories told by children aged three to six years old with malignancies “showed more imagery related to, and descriptions of, negative futures, loneliness, bodily intrusion, and nonbeing” (Malone 55). Stillion and Papadatou argue that healthy children between the ages of 2 and 6 “are still struggling with the tasks of developing a healthy sense of autonomy (independence) and initiative (ability to take the lead in exploring new activities and enterprises)” (302). They discuss the possible impacts of the limitations that seriously ill children experience: “limited energy and frequent interruptions in normal schedules [which] may impede both independence and initiative” (Stillion and Papadatou 302). Disruptions to schedules and limited energy are but a part of the challenges faced by these children. The California children speak of losing their hair, but Stillion and Papadatou point out that this is but one of the problematic side effects of the disease and the medications:

> Seriously ill children may find that either because of disease or treatment side effects (e.g., baldness or skin eruptions) peers may begin to shun them. With limited energy, they may not be able to take part in normal childhood activities such as sports or scouting and may therefore experience a real threat to their self-concept, resulting in mounting feelings of inadequacy. (302)

An experiment was designed and carried out by Naomi I. Eisenberger, Matthew D. Lieberman (both of University of California Los Angeles Department of Psychology),

and Kipling D. Williams (Dept of Psychology, Macquarie University; Sydney, Australia) that studied brains of adults as they were perceiving social exclusion. Using fMRI, the scientists found that the brains of the subjects displayed "parallel results from physical pain studies, the anterior cingulate cortex (ACC) was more active during exclusion than during inclusion and correlated positively with self-reported distress" (Eisenberger, Lieberman, and Williams 290). In addition, they found: "Right ventral prefrontal cortex (RVPFC)48 was active during exclusion and correlated negatively with self-reported distress" (290). The authors suggest that the two regions of the brain, the ACC and the RVPFC, function together in regulatory fashion to mediate the distress of social exclusion. (290). It warrants repeating that this study was carried out on adult participants. At this time, any discussion of the neurophysiology of social separation in children would be based on adult studies and therefore can be understood to be hypothetical.

Returning to the work of Bluebond-Langner, the reader learns that Jeffrey now makes weekly visits to the oncology clinic. While there, he intermittently engages in parallel play (coloring at the same table) with the other young patients in the clinic. He exhibits fear of medical procedures, such as having his blood drawn or bone marrow aspirations. In the clinic, he is in a constant state of heightened alert. He learns about the otherwise unspoken aspects of his disease from the other children. Playing side by side, the children engage in a sort of short hand dialogue that includes medications, who among the staff they should trust, and the meanings and implications of medical terms such as "remission" and "relapse." Jeffrey is frequently fearful and repeatedly expresses separation anxiety when his mother leaves him in the waiting area so that she can attend weekly meetings (in a room adjacent to the clinic playroom where Jeffrey is coloring). After an unspecified amount of time, Jeffrey falls out of remission and is once again hospitalized.

Fourteen months after diagnosis

> *He has remained asymptomatic and has had no major side effects or complications from the drugs. Jeffrey has been promoted to the second grade. However he now has relapsed. This scene takes place on his re-admission to the hospital.*
>
> (JEFFREY, looking pale and uncomfortable, wheeled off the elevator by his father. His mother walks beside him carrying shopping bag and a small overnight bag. As they make their way to the nurses' station, they look straight ahead. Their steps are even and regular.)
>
> NURSE RICHARDS: (Standing to the left of the receptionist's desk, making notes in a chart. Looks up.) Hello! I remember you.
>
> JEFFREY: (Doesn't look up.)
>
> . . .
>
> NURSE RICHARDS: Well, Jeffrey, we have a room all ready for you. (Turning to face MRS. ANDREWS) He is going to be in reverse isolation. . . . It [reverse isolation] is not so that you don't catch anything from him, it's so that we don't give anything to him, since we don't know what is causing his fever yet, and because his count is so low. It's to protect him from us, not us from him. (Bluebond-Langner 65-

Jeffrey's parents are further instructed that they must put on sterile gowns every time they enter his room, and that all other visitors must wear sterile masks as well. Further, Nurse Richards warns: "Please make sure that you wash your hands when you come in the room, and especially before you touch him" (Bluebond-Langner 67). Soon after Jeffrey and his parents are gowned and settled in the room, one of the doctors on Jeffrey's team enters to do a physical exam. During this exam, Mrs. Andrews offers that Jeffrey has "been complaining he has trouble walking" (Bluebond-Langner 68). Up to this point, Bluebond-Langner has not observed any anger in Jeffrey. This changes over the course of this hospital admission:

> (MYRA enters the room and goes over to the sink to wash her hands. Her back is to JEFFREY, but she can see him in the mirror.)
>
> JEFFREY: (Aggravated) I might have another bone marrow because the one they did on Saturday had too much liquid. (Now excited) But I have a plan to blow up the doctors when they try to get me again. I will put dynamite in the bone marrow syringe and when they push down the dynamite in [sic], the syringe will go off.
>
> MR. ANDREWS: Jeffrey!
>
> JEFFREY: I'll have it put that way (demonstrates with his hands). And if that doesn't work, I'll wrap myself up in a sheet so they won't find me (proceeds to wrap himself up, but the I.V. tubing gets in the way) Damn it!
>
> MR. ANDREWS: Jeffrey!
>
> (Silence)
>
> JEFFREY: (To MYRA) Do you want to color with me?
>
> MYRA: Well, just for a little while.
>
> . . .
>
> MR. ANDREWS: Jeffrey, I'm going to get a cigarette. I'll be back soon.
>
> JEFFREY: (Without looking up) OK.
>
> (Bluebond-Langner 82-83)

It is easy to imagine the causes of Jeffrey's anger. He has been poked and prodded for months, separated from the life trajectory of his peer group by frequent interruptions to his schedule. Mr. Andrews appears reticent, and at least in this outburst does not engage the anger of his son nor does he encourage discussion about his son's feelings. All the while, Jeffrey's little body and brain continue to be ravaged by disease.

Terminally ill young children may not have the language to express the complexities of their feelings; however, certain behavioral changes have been noted in children as they approach the end of life. Stuber and Bursch write of anorexia, anxiety, delirium, depression and suicidality, fatigue, and insomnia as frequent and deeply disturbing behaviors in terminally ill children (258-60). Jeffrey has thus far has exhibited decreased appetite, anxiety, and fatigue. But, with an admission into a reverse isolation room, he seems to explode in anger as he curses and describes in detail how he will blow up the

doctors with dynamite. Stuber and Bursch explain:

> Other common behavioral changes that may occur with terminally ill children include uncharacteristically negative, oppositional, aggressive, energetic, or emotional acting out and/or apathy and withdrawal from family and friends. (261)

In the earlier scene with Jeffrey, Myra, and his father, the reader observes all of these behaviors. He has expressed his anger at the doctors and is apathetic towards his father's departure.

Due to ethical considerations, fMRI studies have not been done on this fragile population of dying children. However, both anger and aggression have been the focus of considerable study in non-terminally ill children and adults. The role of the amygdala in anger has been discussed in chapter 3, and reiterated above and additional research supports the role of the amygdala in aggressive behavior. However, one must remember that the amygdala is but a part of an interconnected neural network. Bear et al. note the involvement of additional brain structures in the production of human aggression:

> During the twentieth century, several brain structures besides the amygdala were shown to have effects on aggression. These structures, including the hypothalamus and midbrain periaqueductal gray matter, appear to influence behavior partially based on input from the amygdala. (579)

In the interest of thoroughness, one must recognize that the amygdala does not activate in a vacuum. Rather, it is part of a larger system, affecting regions of both the brain and the nervous system to produce the memory for fearful situations as well as the many varied bodily responses one has to such situations.

Bluebond-Langner mentioned several times that Jeffrey is coloring when she enters the room, and he frequently will ask her to join him in this activity. In her chapter entitled "Medical Art Therapy with Children," art therapist Tracy Councill discusses the intrinsic value of art making in ill children:

> When an ill child engages in art making, he or she is in charge of the work - the materials to be used; the scope, intent, and imagery; when the piece is finished; and whether or not it will be retained or discarded. All these factors are under the child artist's control. Participating in creative work within the medical setting can help rebuild the young patient's sense of hope, self-esteem, autonomy, and competence while offering opportunities for safe and contained expression of feelings. (207)

Councill describes the artwork of a seven-year-old youngster, a girl being treated for cancer, who, like Jeffrey, was hospitalized in a reverse isolation room for an extended period. The child was not well enough to attend school or engage in the many other social activities of her family and friends outside of the hospital. Because of the risk posed by her infection to other immune compromised children, she was also excluded from activities involving any other children in the hospital. The young isolated patient with whom Councill worked produced less and less art over the course of her isolation. However, when her infection ended and her isolation came to an end, she was again allowed to participate in activities with the other children and created her first post-isolation piece of artwork. Councill writes:

> [H]er first creation was an elaborate clay sculpture of an igloo, complete with an

> Eskimo to inhabit it, a dog, a supply of food, and a fire to keep him warm. As she explained it, "he has everything he needs, but not people. (214)

This vivid imagery of being left out in the cold leaves me shivering at the thought of this poor child and the effects of isolation on her body. Cacioppo and Patrick explain:

> [C]hronic *feelings* of isolation can drive a cascade of physiological events that actually accelerates the aging process. Loneliness not only alters behavior but shows up in measurements of stress hormones, immune functions, and cardiovascular function. (5)

The effects of isolation on the human body are fraught with biochemical complexity. Bodily systems are a dynamic and interconnected web of chemical and electrochemical interactions informed by one's own body as well as the bodies and emotions of others. As researchers explore the neurophysiology of emotions, more information is gleaned and understood. Ways to combat the severe feeling of isolation in the medically fragile child will then be more successfully addressed. As is clear from the igloo created by Councill's patient and the words of Bluebond-Langner's Jeffrey, the bodies of both children are under siege from internal as well as external forces. Attachment theorist John Bowlby remarks on the challenges inherent in being isolated when young: "To be isolated from your band, therefore, and, especially when young, to be isolated from your particular caretaker is fraught with the greatest danger" (47). Exposure to dangerous situations poses a constant threat for hospitalized children. And as Bluebond-Langner observed, many procedures are carried out with the child being separated from his or her parents. The threat of danger looms constantly on the horizon for these children.

Returning to Jeffrey, whose isolation has ended and he has now been returned to a regular room.

JEFFREY's room, later that evening, 9:00 p.m.

> (JEFFREY is hunched over the foot of his bed watching the little remaining activity in the hallway.)
>
> JEFFREY: (Calling to MYRA as she walks by) See, they took away my isolation.
>
> MYRA: (Stops.)
>
> JEFFREY: I might get to go home tomorrow if the blood test is all right. I just have one blood test to go and then I can see. I mean they can see if I can go home. Then I'll have my I.V. out. Lisa [the young girl hospitalized across the hall from JEFFREY] just got her I.V. out and that means she can go home after they watch her. They have to watch my counts, but even then I can go home.
>
> MYRA: That's great.
>
> (MYRA walks over to the bed.)
>
> JEFFREY: (In a very serious and shaky voice) I hope I don't have to come to the hospital again, I hope this is the last time I have to come. They stick you all the time. (Tears fall, but he does not vocalize a cry.) Could you stay 'til I fall asleep? I'll try. (Lies back.)
>
> MYRA: (Nods and takes a seat beside the bed.)

JEFFREY: Good night! (Turns over.)

MYRA: Good night, Jeffrey.

(Bluebond-Langner 86)

Here one observes many of the emotions which have been discussed earlier: fear for his future, distress over having been isolated, and a desire to keep one who has become a familiar and comforting presence nearby as he falls asleep. The sadness and loneliness in this scene is overwhelming.

After discharge, Jeffrey's leukemia is induced into remission and Jeffrey returns to his weekly scheduled evaluations in the clinic. After seven weeks he presents in the clinic with repeated uncontrollable nose bleeds, a frequent symptom of leukemia indicating a low platelet49 count. He is admitted immediately. Jeffrey's first question as he and his parents arrive for the third time at the now familiar nursing station is: "Do I have to be in isolation?" (91). Fortunately, this time the answer is no. Over the course of the next weeks, Jeffrey is admitted and discharged several times, seemingly to live in a revolving door of admissions and discharges. At one point, Bluebond-Langner has the opportunity to speak with Jeffrey's mother in private. During the course of the conversation Mrs. Andrews confides that with this hospitalization, she has asked her parents to come to take Jeffrey's younger sister home with them, prompting Ericka to ask if Jeffrey was going to die. Mrs. Andrews speaks of the distress of all of the family members over Jeffrey's situation, and then Bluebond-Langner asks Mrs. Andrews specifically about Jeffrey:

MYRA: What do you think Jeffrey knows?

MRS. ANDREWS: I'm not sure anymore. He doesn't ask as many questions as he used to, but I think he knows a lot more than he says he does or lets on.

MYRA: Where do you think he gets his information from?

MRS. ANDREWS: Well, it's not from us, I know that. We just don't talk about it and he doesn't ask. Probably from the other kids in clinic. I think children ask each other because they know they'll get a straight answer, and besides, maybe they see it makes us uncomfortable. We really have a hard time talking lately, and I think he knows it and just doesn't talk to me.

MYRA: Do you think he knows that he will die from this?

MRS. ANDREWS: I don't think he knows that yet. . . .

(Bluebond-Langner 108-09)

Over the course of this admission, three of the other children on the floor die. Jeffrey and his parents are all aware that these children, Jeffrey included, have been following similar courses of remission and relapse, and now, Jeffrey too has entered the terminal stage of his disease and end of his young life. Jeffrey is admitted six more times over the next two months. He has been experiencing extreme levels of fatigue, severe bone pain, continual nose bleeds, toxic side effects from the medications including hair loss, and he is no longer able to walk without pain.

The final hours: Jeffrey's room

(JEFFREY is lying in bed. The TV is on, without the sound, but he is not even looking at the picture.)

MYRA: Hi, Jeffrey. Can I come in?

JEFFREY: (Nods almost imperceptibly from the bed.)

MYRA: (Puts on a mask and gown and washes her hands.)

(Myra enters the room)

MYRA: Are you comfortable, Jeffrey?

JEFFREY: (In a slow whisper) Yeah. Will you read me the part in Charlotte's Web, where Charlotte dies? The book is over there.

MYRA: Sure. (Goes over to the night table and gets the book and sits down. Shows JEFFREY the chapter entitled "Last Day.")

JEFFREY: (Nods.)

MYRA: Can you see OK?

JEFFREY: (Nods.)

MYRA: (Begins to read aloud.)

[. . .and closes with] "No one was with her when she died. " (Closes the book.)

JEFFREY: (Dozes off).

MYRA: (Places the book by his bed, leaves him a note on the end of his bed.)

(Myra leaves the room.)

Later that afternoon, at 5:15 p.m., JEFFREY ANDREWS died.

(Bluebond-Langner 133-34)

Discussion

From the very earliest stages of his illness, Jeffrey's body was in the process of being slowly altered by his cancer. As the disease progressed, his body and his life trajectory took him further and further from the physiology of a healthy five-year-old child. This chapter has demonstrated a few of the myriad ways that Jeffrey's experiences with the anxiety of his parents, his hospitalizations (both in isolation and in regular hospital rooms), and repeated painful treatments in the fight for a cure altered his body chemistry in profound ways. The central role of the limbic system in processing his experiences must not be overlooked when seeking to provide relief to these patients. The importance of adequate pain management in these children has been discussed, as has the role of endogenous opioids (enkephalins and endorphins) in providing some relief from the misery experienced by these youngsters.

Fortunately, the last decade has seen explosive growth in the field of child studies. In 2000, the Agency for Healthcare Research (a section of the U.S. Department of Health and Human Services) compiled the first national database focusing on the care of hospitalized children. The work, *Kids Inpatient Database*, is the first of its kind to provide a national picture of how and why children in this country are hospitalized in the

twenty-first century (http://www.ahrq.gov/data/hcup/factbk4/factbk4.htm). At the same time, popular publications such as *Parent's Magazine* (Feb. 2009) and *U.S. News and World Report* (June 7, 2010) each have published reports in recent years rating medical care given to children in approximately 100 of the 170 children's hospitals in existence today in the United States. Myra Bluebond-Langner has continued her groundbreaking work in child studies, and in addition to her research into childhood health and illness, she is currently the editor of the Rutgers University Press Book Series in Childhood Studies. She observes:

> *Scholarly attention paid to children and their childhoods is intensifying, with Childhood Studies poised to be to the start of the 21st Century as Women's Studies had been to the end of the 20th century*
>
> (http://children.camden.rutgers.edu/profile/bluebond.htm).

Fortunately, care of hospitalized children has come under enormous scrutiny over the course of the last forty years and today includes a much more family and child centered approach than in the care provided to Jeffrey Andrews over forty years ago. Although these children still suffer severely, services such as art therapy, play therapy, music therapy, and more have been added to the cadre of options available to help ease the misery of a child living with terminal illness.

Among the more wondrous options now available to these children is the Hole in the Wall Gang Camp in Connecticut mentioned at the beginning of this chapter. The camp, begun by actors Paul Newman and his wife, Joanne Woodward, provides a full summer camp experience for children that helps these youngsters *just be normal* kids for a week and forget, if only for a short while, that they are terminally ill. This chapter has focused on the voices of children and opened with the musings of a healthy three-year-old child as she and her grandmother discussed death. Next, the beautiful poem entitled *The Way You Change Things*, a poem written by unnamed seven-year-old camper at the Hole in the Wall Gang Camp was reprinted on page 2. What follows is a poem written by thirteen-year-old Katie Martin, a youngster suffering from a brain tumor, as she explored for herself the meaning of death:

Clouds

I see clouds in the water.

They look like cotton balls.

They look more wrinkly than the ones in the sky.

On the other side of the clouds, baby clouds are playing.

The clouds are playing tag.

The fish are playing shark.

That wrinkly cloud looks like someone with big lips and spiky hair.

Clouds and islands are both new places.

Reflections from under the water look a little bit different,

But almost the same.

When people die, they go to the clouds.

The ones that move are the ones that are occupied.

God tells them where to go.

He looks down at the earth and sees who is sad and who needs

To be cheered up by a beautiful day.

Everyone has a cloud.

That's mine up there,

Hi Grammy, Hi Aunt Edna.

Last night it took a long time for them to cheer me up.

It took Grammy a while to get on her feet.

It was raining the day she died.

The me inside is never gonna die.

I'll go to Heaven and ride white horses.

Everything in Heaven is white.

Except the black people there. (*I will sing life* 190-91)

Hope always lies in the future and the future always rests with the children. This chapter has been filled with tears and sadness on behalf of suffering children; it is my hope that the reader is left with not only a better understanding of what is occurring below the surface in these children, but also a sense of hopefulness. As increasing levels of attention are paid to improving the lives of our children, the possibility for a better future for twenty-first-century children living with life limiting illnesses is well within the grasp of our society. May it be so.

Chapter 7

Conclusion and Implications

Throughout human history, the end of life has been wondered about, artistically imagined, and mythologized by cultures around the globe. Accordingly, a wealth of ancient and modern literature exists which highlights the sacred and unique nature of this time of life. Through an interdisciplinary approach, this study offers a mythopoetic sensibility on the ways in which the end of life trajectory is lived and imagined in twenty-first-century America.

Theistic traditions practiced in the United States uniformly embrace a God-given commandment that a dying individual must not be left to die alone. Indeed, each of the three major Abrahamic faiths elevates the act of attending to a dying individual to the level of a divine act of prayer. Nontheistic traditions practiced in modern America also highlight the importance of the bedside sitter. Buddhism, for example, instructs the attendant to read the sacred *The Tibetan Book of the Dead* to the dying individual to help guide the person as he or she transitions out of life. Literary evidence from these traditions suggests that caring for one who is dying is of supreme importance - important enough to have been transmuted from a bodily experience into a divine commandment.

I suggest that perhaps the divine source of this edict is nothing less than the voice of the body as it seeks to diminish the otherwise ineffable pain of the separation from life. It is my contention that over the course of human evolution, the body and the psyche have developed elegant means by which to ease the time of dying for the one whose death is imminent, while simultaneously educating the body of the attendant in such a way as to ease the dying time of the attendant when he or she prepares to transition out of life. Together, the dying individual and the bedside attendant carry out the ancient wisdom of humankind.

Sadly, many who are dying have the tragic experience of profound loneliness. Abundant literature exists to assist clinicians in the medical aspects of caring for the dying, and much is written by grieving individuals for others who share the same condition. But little is written which combines the wisdom of the ages with current understandings of human physiology at the time of dying. It is hoped that this work will provide a foundation for scholars of thanatology and related disciplines, for professionals working with dying individuals, and more generally for those who have cared for or will care for a terminally ill loved one.

Twenty-first-century Americans are crying out for those in positions of authority to humanize the dying process. By historically reviewing four thousand years of extant literature, this project weaves together the common threads between many faith traditions being practiced in America today and encourages the emergence of a cultural collective that embraces the time of dying as a sacred and unique time of life, no less important than the ritual day to day life process itself. My hope and intention in creating this study is that this project adds a mythic perspective to the already robust discussions occurring that

seek to improve end-of-life care as it is imagined and carried out in the future so that the end of life ritual can be as valued as life itself.

Appendix A

Dream reports included in end of life dream series

Note: For clarity, I have italicized the dreams in this appendix. Not all dream texts were italicized in the original printings. Additionally, I have intentionally left out dreams in which M-L von Franz does not specifically state that the patient died as well as multiple dreams reported from a single dreamer. I have chosen, for better or for worse, to include the first dream of any given dreamer that M-L von Franz reports in her book. Dreams reported under fifty words or over three hundred are not included here so as to be able to utilize Hall/Van de Castle norms. Additionally, dreams of dying patients have been included from other sources to create a wider variety and a viable dream collection of thirty dreams. Unless otherwise noted, the dreams come from von Franz, *On Dreams & Death.*

1. Page xvii, young woman, cancer, twenty-four hours before her death: 60 words

I am standing beside my bed in the hospital room and I feel strong and healthy. Sunshine flows in through the window. The doctor is there and says, "Well, Miss X, you are unexpectedly completely cured. You may get dressed and leave the hospital." At that moment I turn around and see, lying in the bed - my own dead body!

2. Page 10, man in his 40s, cancer, unknown time frame prior to death: 50 words

He saw a green, half-high, not-yet-ripe wheat field. A herd of cattle had broken into the field and trampled down and destroyed everything in it. Then a voice from above called out: "Everything seems to be destroyed, but from the roots under the earth the wheat will grow again."

3. Page 19, 61 year old man, unexpected death from heart failure 4 weeks later: 97 words

He was once again in the officers school where he had acquired the rank of lieutenant thirty years before. An old corporal of whom he thought highly at that time and who in reality had the meaningful name of "Adam," appeared and said to him, "Mr. Lieutenant, I must show you something." He led the lieutenant down into the cellar of the barracks and opened a door - made of lead! The dreamer recoiled with a shudder. In front of him the carcass of a horse lay on its back, completely decomposed and emanating an awful corpse smell.

4. Page 25, a "dying" 75 year old man, dx unknown: 71 words

I see an old, gnarled tree high up on a steep bluff. It is only half rooted in the earth, the remainder of the roots reaching into the empty air. Then it becomes separated from the earth altogether, loses its support and falls. My heart misses a beat. But then something wonderful happens: the tree floats, it does not fall, it floats. Where to? Into the sea? I do not know.

5. Page 26, man, dx unknown, died a few days later: 96 words

I am on or in a sky-blue air-liquid that has the shape of an egg and I have the feeling that

I am falling into the blue, into the universe. But then it is not so. I am caught and carried by a little blue cloth or by the flakes which hold me. Now I fall into the universe - I want to try it. But I do not lose my hold and I am caught by cloths and by people who speak to me. The small cloths surround me. Red stairways drip and form a Christmas tree.

6. Page 30, man, cancer, died shortly afterward: 92 words

He was going through a forest in winter. It was cold and misty. He shivered. From a distance he could hear the moan of a chain saw and from time to time the crack of falling trees. Suddenly the dreamer was once again in a forest, but on a higher level as it were. It was summer, sunlight spotted the green moss on the ground. His father (who, in reality, had died long before) walked toward him and said, "You see, here is the forest again. Do not concern yourself any more with what is happening down there" (that is, the hewing down of trees.)

7. Page 46, 52 year old man, died of heart attack more than a year later: 122 words

He was going to a funeral of some man who had been indifferent to him; he was just walking with a lot of people in a funeral cortege. In a little square place in the town, where there was a green lawn, the cortege stopped. On the lawn there was a pyre and the bearers laid the coffin on it and set fire to it. The dreamer watched it without any special feelings. When the flames sprang up, the lid of the coffin opened and fell off. Out of the coffin sprang a most beautiful woman; she opened her arms and went toward the dreamer. He too opened his arms to embrace her and woke up with a feeling of indescribable bliss.

8. Page 48, initial dream reported by Wheelwright, young woman, cancer: 96 words (Wheelwright page 28)

I came upon a Sumerian tower with great ramps zigzagging to the top. It was also Southern California State College , overlooking the University of Southern California. I had to climb to the top; it was a horrifying ordeal. When I got there I looked below and throughout the city I saw buildings from the Sumerian, Romanesque, Gothic, and ancient Indian eras. There was a large elegant book lying open before me. It was handsomely illustrated with architectural details of these buildings, of their friezes and sculptures. I awakened terrorized by the height of the tower.

9. Page 51, man, sudden heart attack three weeks later: 91 words

He was in a church beside his wife - apparently to be married to her again or to reconfirm his marriage. But in front of him was a blank whitewashed wall. The minister was a person whom he knew in reality, a very decent but depressive, neurotic man. Suddenly a most beautiful Gypsy woman broke into the ceremony, fettered the parson with ropes and began to drag him away. At the same time she looked with flaming eyes at the dreamer and said, "And with you, I will soon lose my patience."

10. Page 51, "relatively young man," weeks before his death, unexpected heart failure: 107 words

At a party of his relatives, he meets a woman and knows immediately that she is <u>the</u> woman for him, although, he has never encountered her in his outer life. She is very attractive physically, but it is more than that. He feels that she completely embodies the

most basic requirements for relationship, that she is independent of him and yet very closely intimate. Wherever she goes, she offers him her hand and obviously rejoices in his company, but there is no forcing at all in any of this. . . together they go to a shop in the city and every moment together is pure joy.

11. Page 59, young woman, incurable disease, died unexpectedly: 110 words

I find myself at the edge of a lake with my husband and some friends. The lake is very deep and the water is clear, transparent, clean and blue. Suddenly I see a black bird in the depths of the lake; it is dead. I feel great sympathy and want to dive in, search for it and save it. I cannot stand to think that it is dead. My husband intervenes lovingly but firmly and asks me not to do it, because, he says, it is right this way. I look into the lake once more and see the eye of the bird; it is a diamond that shines brightly.

12. Page 60, woman, died shortly after the dream was reported by Mark Pelgrin, qtd. by von Franz, *On Dreams*: 63 words

As I seem to awaken, I see a coloured circle which is thrown on the screen of the curtain that hands down in front of the window in our bedroom. . . I am walking gingerly around this circle which seems to be black, as though I must tread carefully or I will fall in. This is evidently a pit, the black hole.

13. Page 60, unidentified gender, died a few days later: 52 words

In the middle of a picture I see a black square. It is a kind of medieval night chest. Flashes of red light stream from it. These flashes point to a sky, painted in pastel colors, mostly yellow and blue, with a radiant sun (on the upper right side of the picture)

14: Page 68, man, cancer: 51words

He awakens in the middle of the night in bed, in a dark room halfway under the earth. A bright gleam of light streams through the window. Suddenly he sees a stranger in the room, someone who fills him with such an inhuman, terrible fear that he awakens bathed in sweat.

15. Page 68, man , reported by R. Lindner, qtd. by von Franz, *On Dreams*: 117 words

I come home and close the apartment door. As I enter, I have the feeling that something is there. . . .I look into my room and see an old man over sixty whom I have observed occasionally on the tram; he looks like death. He has come into the house as a burglar. Horrified, I run out of the house but I cannot lock the door from the outside so I knock at a neighbor's door and call for help. But there is no one to be seen there and no one opens the door for me. I am all alone. I go back to my apartment where the sinister man is still in my room.

16. Page 76, man, 60s, lung disease: 91 words

He was leaving the hospital and walking toward an old gate, which was in the Middle Ages and was the exit from the city. There he met Jung, who was dead and had become the king of the realm of the dead. Jung said to him: "Now, you must make up your mind if you want to go on living and continue your work [he was a painter] or if you want to leave your body. Then the dreamer saw that his sickbed in the hospital was also his easel.

17. Page 95, woman, reported by Mark Pelgrin, qtd. in von Franz, *On Dreams*: 94 words

I saw vividly a number of very serious men, as though in a solemn ritual, waiting for me to come along on a stretcher on a n open veranda that faced a courtyard. They were dressed in bright colors, some like silken jockey clothes. All were waiting for some work to do in the courtyard, some very important dignifying work on me. There was a vague impression of an altar there to which I was taken to be sacrificed to the gods, to be worked on by the powers within in some healing way.

18. Page 127, Jung days before his death: 67 words

He saw a great round stone in a high place, a barren square, and on it were engraved the words: "And this shall be a sign unto you of Wholeness and Oneness." Then he saw many vessels to the right in an open square and a quadrangle of trees whose roots reached around the earth and enveloped him and among the roots golden threads were glittering.

19. Reported by John Sanford, man: *Dreaming Beyond Death,* Bulkeley and Bulkley, page 64: 168 words

In the dream he awakened in his living room. But then the room changed and he was back in his room in the old house in Vermont as a child. Again the room changed: to Connecticut, to China, to Pennsylvania, to New Jersey, and then back to the living room. In each scene after China, his wife was present, in each instance being a different age in accordance with the time represented. Finally he sees himself lying on the couch back in the living room. His wife is descending the stairs and the doctor is in the room. The doctor says, "Oh, he's gone." Then as the others fade in the dream, he sees the clock on the mantlepiece; the hands have been moving, but now they stop; as they stop, a window opens behind the mantlepiece clock and a bright light shines through. The opening widens into a door and the light becomes a brilliant path. He walks out on the path of light and disappears.

20. Frank's dream reported by Michael Kearney in *Mortally Wounded*: paperback page 66: 139 words

I woke up suddenly, I was in my room here. It was as though I had been asleep for a very long time. Slowly I realized that I was trapped here, a prisoner. The room was dimly lit by moonlight coming through my window. I began to realize that I was not alone. Over by the corner, where it was particularly dark, there were four people. They were Russians, and they were both alien and somehow familiar to me, as if they were a part of me. They were members of some ballet group. It seemed that we were in some way allies and that it was important that their true identity remain unknown. If their identities became known, we would all be sunk. The dream had ended with Frank's feeling that he must get out of bed.

21. Florence's mother right before her death, *Nearing Death Awareness*, Mary Anne Sanders, page 65: 64 words

She dreamed she was on a boat on the river of death, she just wanted to get to the shore and die. These large arms drew her out of the boat and set her on the shore. She saw the brightest sunshine she had ever seen and said that God sang to her all night an put her back in bed for three nights.

22. Margie's dream at the end of her life. Bulkeley and Bulkley, page 61: 71 words

She had been in a car, but it had no driver and it was going down a field that sloped steeply toward a large ditch that two men were digging. Some of her grandchildren and other children whom she knew were running and playing in the field. She kept calling out to them, only to realize that when they came near they just looked past her, showing no signs of recognition.

23. Jim's dream. Bulkeley and Bulkley, page 81: 62 words

He was a little boy in the schoolyard of the town where he had grown up in the Pacific Northwest. He and some children were playing a circle game, which had moves almost like square dancing. As they moved toward and away from each other in the dance, Jim could see images of the lines of connections like colorful ribbons making patterns.

24. Hiroshi's dream, Bulkeley and Bulkley, page 84: 56 words

The doorbell rings, and I answer it. There stand my aged grandparents, very short, neatly dressed, bowing and smiling. They slip off their shoes in the traditional way, enter the room, and hold forth two very large bouquets of pinkish orchids. I bow deeply and smile in return at their happy faces. I accept the bouquets.

25. Tracy's dream, page 898, Bulkeley and Bulkely, 151 words:

At the beach house people were at the card table in the family room playing some sort of game - they all had masks on - and some voices outside the room, or above it, kept calling her name and saying, "Come with us, come with us, Tracy." They were laughing and singing and having a good time. "Don't worry about them," she was told about her other relatives as the game table, "What they don't know won't hurt them." Tracy was in the family room of the beach house as this was happening, and the party seemed to be going on in the direction of the living room, where the fireplace is. But she could not go through the closed doors between the two rooms, so she had to go down the hall near the bathroom to get into the other room where the party was going on.

26. Dream 2, Christopher's dreams, Bosnak, page 11, 87 words:

Dream of driving around something like a lake on a white speed boat. I'm not driving and feel as though I could be thrown off and should possibly take control and drive. We come to a place where we have to go through and a weasel of a small wiry man charges us to go through. It is some sort of passage, but not a lock. I paid it but remember feeling he charged too much (embezzled me) and feared I would not have enough for later.

27. The final dream , dream 13 of Edinger's patient, *Ego and Archetype*, page 221, 62 words:

I was looking at a curiously unique and beautiful garden. It was a large square with a floor of stone. At intervals of about two feet were placed brass objects, standing upright, and looking very much like Brancusi's "Bird in Space." I stayed a long time. It had a very positive meaning but what that was I was unable to grasp.

29. *Dancing at the edge of life,* Warner, page 24, 51 words:

Last night I saw a beautiful mountain flanked by a sparkling forest and lake. But as I leaned out to photograph it, it turned into a scene of devastation, littered with the

corpses of huge redwood trees. One enormous old tree, freshly cut and still unsectioned, was floating in the lake.

29. *Mortally Wounded,* Kearney, page 134, 195 words:

In the middle of the night James had woken to find a man standing by his hospital bed. The man had introduced himself as Professor John Kelly Reeves, who told him that because he did not have very long to live, he wanted to pass on some important information to James. He brought James to Newgrange, a pre-historic burial chamber situated north of Dublin in County Meath. He led him into the heart of the tomb, so that James's back rested on a stone slab which is touched by the first rays of sun each midwinter's day. The professor then led James forward out of the burial chamber, told him to turn left for a certain distance, then left again for another short distance, and finally left again. At this point James was instructed to start digging. "And you know, I discovered there the most wonderful thing. Buried under Newgrange I found this other pre-ancient city. I could see all the circular outline of the houses and the lines of the streets of this marvelous city as it spread out toward Dundalk. This is the treasure that I wanted to share with my sons.

30. From Jill Fischer, unpublished end of life dream of middle aged man approximately six months prior to death, 148 words:

Suddenly there is some sort of character - a little like a yellow round robot - who was the embodiment of the cancer/patch/area - who wanted to lead me somewhere. It was like being in one of the T stations in Boston where they were remodeling and there was construction going on - and it wanted to lead me to the edge of a walkway where there was no rail or wall, and it wanted me to follow it down a tube - a plastic tube - large enough to slide down like a construction site rubbish-dumping tube - or a child's slide tube - but I didn't want to go and I refused because I wasn't sure where it was going and I didn't trust it, and I thought it might be a death-slide into some sort of deadly place of its devising. It all felt strange.

Appendix B: Works Cited

"About AAP." *AMERICAN ACADEMY OF PEDIATRICS WEB SITE*. Web. 22 Nov. 2010. <http://www.aap.org>

"About Discover Nikkei." *Home | Discover Nikke*i. Japanese American National Museum. Web. 04 Apr. 2010. <http://www.discovernikkei.org>.

"About the Pew Research Center." *Pew Research Center*. 17 Jan. 2011. Web. <http://pewresearch.org/about/>.

"Abraham." *Britannica Encyclopedia of World Religions*. Chicago: Encyclopedia Britannica, 2006. 6-7.

"Abraham." *Catholic Encyclopedia*. New Advent. Web. 15 Oct. 2009. <http://www.newadvent.org/cathen/01051a.htm>.

Abram, David. *The Spell of the Sensuous: Perception and Language in a More-than-human World*. New York: Vintage, 1997.

Alford, Finnegan, and Richard Alford. "A Holo-Cultural Study of Humor." *Ethos* 9.2 (1981): 149-64.

Allison, Dale C. *Testament of Abraham.* Commentaries on early Jewish literature. Berlin: Walter de Gruyter, 2003.

Anderson, Megory. *Attending the Dying: a Handbook of Practical Guidelines*. Harrisburg: Morehouse, 2005.

Andrews, Tamra. *A Dictionary of Nature Myths: Legends of the Earth, Sea, and Sky*. Oxford: Oxford UP, 1998.

"Angel." *The Book of Symbols: Reflections on Archetypal Images*. Ed. Ami Ronnberg and Kathleen Martin. Archive for Archetypal Symbolism. Koln: Taschen, 2010. 680-82.

Anstey, Peter R. ""De Anima" and Descartes: Making up Aristotle's Mind." *History of Philosophy Quarterly* 17.3 (Jul. 2000): 237-60.

Aristotle. *On Prophesying by Dreams*. Trans. J. I. Beare. *The Internet Classics Archive*. Massachusetts Institute of Technology. Web. 12 July 2010. <http://classics.mit.edu/Aristotle/prophesying.html>.

Arntz, Arnoud, Laura Dreessen, and Harald Merckelbach. "Attention, Not Anxiety, Influences Pain." *Behaviour Research and Therapy* 29.1 (1991): 41-50.

Artemidorus, Daldianus. *The Interpretation of Dreams: by the Most Celebrated Philosopher Artimedorus, and Other Authors. First Written in Greek, and Afterwards Translated into Divers Foreign Languages, and Now Made English. A Treatise of Great Value and Esteem, and Very Delightful and Useful for All Sorts of People. The Twenty-Third Edition, with Many Additions, the Author's Life, and the Opinion of Divers English Authors, concerning the Certainty of Dreams, and Their Events.* London: J. Bew, 1786.

Artemidorus. *The Interpretation of Dreams = Oneirocritica*. Trans. Robert J. White. Torrance: Original, 1990.

Aserinsky, E., and N. Kleitman. "Regularly Occurring Periods of Eye Motility, and Concomitant Phenomena, During Sleep." *Science* 118 (1953): 273-74.

Ashvagosha. “The Buddhacharita: The Acts of the Buddha.” *Buddhist Scriptures.* Trans. Edward Conze. Harmondsworth, Middlesex: Penguin, 1959. 34-68.

Augustine, St. “Confessions.” *The Anatomy of Memory: An Anthology*. By James McConkey. New York: Oxford UP, 1996. 5-8.

Bamberger, Bernard J. and Joshua Gutmann, Arthur Marmorstein, Dov Shmuel Flattau, Samuel Abba Horodezky, and Alexander Altmann. “Angels and Angelology.” Encyclopedia Judaica. Ed. Michael Berenbaum and Fred Skolnik. Vol. 2. 2nd ed. Detroit: Macmillan Reference USA, 2007. 150-161.

Barbi, Egidio, Laura Badina, Federico Marchetti, Roberta Vecchi, Isabella Giuseppin, Irene Bruno, Giulio Zanazzo, Armando Sarti, and Alessando Ventura. “Attitudes of Children With Leukemia Toward Repeated Deep Sedations With Propofol.” *Journal of Pediatric Hematology/Oncology* 27.12 (2005): 639-43.

Barnes, Patricia M., Eve Powell-Griner, Kim McFann, and Richard L. Nahin. “Complementary and Alternative Medicine Use among Adults: United States 2002.” *Seminars in Integrative Medicine* 2.2 (June 2004): 54-71.

Basbaum, Allan. “Pain and the Brain.” Lecture. Psychiatry: Brain, Mind, and Behavior. University of California San Francisco, San Francisco. 17 Nov. 2010. *YouTube - Broadcast Yourself.* UCtelevision/OLLI Life Long Learning, 3 Jan. 2008. Web. 17 Nov. 2010. <http://www.youtube.com/watch?v=gQS0tdIbJ0w>.

Bear, Mark F., Barry W. Connors, and Michael A. Paradiso. *Neuroscience: Exploring the Brain*. Philadelphia: Lippincott Williams & Wilkins, 2007.

Becker, Ernest. *The Denial of Death.* New York: Free, 1973.

Berkovitz, Jay R. “Judaism.” *Encyclopedia of European Social History*. Ed. Peter N. Stearns. Vol. 5: Culture & Popular Culture/Modern Recreation & Leisure/Religion/Education & Literacy/Everyday Life. Detroit: Charles Scribner's Sons, 2001. 275-286.

Binger, C. M., A. R. Ablin, R. C. Feuerstein, J. H. Kushner, S. Zoger, and Cynthia Mikkelsen. “Childhood Leukemia: Emotional Impact on Patient and Family.” *New England Journal of Medicine* 280.8 (Feb. 20, 1969): 414-18.

Blackman, Sushila. *Graceful Exits: How Great Beings Die: Death Stories of Hindu, Tibetan Buddhist, and Zen Masters*. Boston: Shambhala, 2005.

Blount, Ronald L., William T. Zempsky, Tina Jaaniste, Subhadra Evans, Lindsey L. Cohen, Katie A. Devine, and Lonnie K. Zeltzer. “Chapter 11: Management of Pediatric Pain and Distress Due to Medical Procedures.” *Handbook of Pediatric Psychology*. By Michael C. Roberts and Ric G. Steele. New York: Guilford, 2009. 171-88.

Bluebond-Langner, Myra. *The Private Worlds of Dying Children*. Princeton: Princeton

UP, 1978.

Bosnak, Robert. *Christopher's Dreams: Dreaming and Living with AIDS*. New York: Delta Trade Paperbacks, 1997.

Bowlby, John. "Affectional Bonds: Their Nature and Origin." 1969. *Loneliness: The Experience of Emotional and Social Isolation [by] Robert S. Weiss, with Contributions by John Bowlby [et al.]*. By Robert Stuart Weiss and John Bowlby. Cambridge, MA: MIT, 1973. 38-52.

Bradshaw, S., D. Ouellet, R. Amini, and J. DeKoninck. "Threat Simulation in Dreams and the Severity of Waking Experience." *Sleep Medicine* 10.Supplement 2 (December 2009): S6.

Brandon, S. G. F. "Time and the Destiny of Man." *The Voices of Time: A Cooperative Survey of Man's Views of Time as Expressed by the Sciences and the Humanities*. Ed. J. T. Fraser. New York: George Braziller, 1966. 140-57.

Bregman, Lucy. *Death and Dying, Spirituality, and Religions: A Study of the Death Awareness Movement*. New York: Peter Lang, 2003.

Breyfogle, Todd. "Imagination." Ed. Allan Fitzgerald and John C. Cavadini. *Augustine through the Ages: an Encyclopedia*. Grand Rapids: William B. Eerdmans, 2009. 442-43.

"British Museum - The Dream Book." *British Museum - Welcome to the British Museum*. Web. 6 July 2010. <http://www.britishmuseum.org/explore/highlights/highlight_objects/aes/t/the_dream_book.aspx>.

Bronheim, Harold E., George Fulop, Elisabeth J. Kunkel, Philip R. Muskin, Barbara A. Schindler, William R. Yates, Richard Shaw, Hans Steiner, Theodore A. Stern, and Alan Stoudemire. "The Academy of Psychosomatic Medicine Practice Guidelines for Psychiatric Consultation in the General Medical Setting." *Psychosomatics* 39 (1998): S8-S30.

Bstan-?dzin-rgya-mtsho, Zara Houshmand, Robert B. Livingston, B. Alan Wallace, Patricia Smith Churchland. Trans. Geshe Thubten Jinpa and B. Alan Wallace. *Consciousness at the Crossroads: Conversations with the Dalai Lama on Brainscience and Buddhism*. Ithaca: Snow Lion Publications, 1999.

Bulkeley, Kelly, and Patricia Bulkley. *Dreaming beyond Death: A Guide to Pre-death Dreams and Visions*. Boston: Beacon, 2005.

Byock, Ira. Foreword. *Being with Dying: Cultivating Compassion and Fearlessness in the Presence of Death*. By Joan Halifax. Boston: Shambhala, 2008. xi-xiii.

Cacioppo, John T., and William Patrick. *Loneliness: Human Nature and the Need for Social Connection*. New York: W.W. Norton &, 2008.

Charon, Rita. *Narrative Medicine: Honoring the Stories of Illness*. Oxford: Oxford UP, 2006.

Chicken Soup for the Soul Bible: New Living Translation. Colorado Springs: Pin?on, 2004.

Cirlot, Juan Eduardo. “Birds.” *A Dictionary of Symbols*. Trans. Jack Sage. New York: Philosophical Library, 1971. 28.

Cohen, Cynthia B. “Religious, Spiritual, and Ideological Perspectives on Ethics at the End of Life.” *Ethical Dilemmas at the End of Life*. Washington, DC: Hospice Foundation of America, 2005. 19-40.

Cohen, John. "Subjective Time." *The Voices of Time: a Cooperative Survey of Man's Views of Time as Expressed by the Sciences and the Humanities*. Ed. J. T. Fraser. New York: George Braziller, 1966. 257-75.

Collins, John J., and Gerri Frager. “Pain and Pain Relief in Pediatric End-of-Life Care.” *Bringing Pain Relief to Children: Treatment Approaches*. Ed. G. Allen Finley, Patrick J. McGrath, and Christine T. Chambers. Totowa: Humana, 2006. 59-83.

Collins, John J., and Suellen Walker. “Pain: An Introduction.” *Oxford Textbook of Palliative Care for Children*. By Ann Goldman, Richard Hain, and Stephen Liben. Oxford: Oxford UP, 2006. 268-80.

Conforti, Michael. *Field, Form, and Fate: Patterns in Mind, Nature, and Psyche*. 2nd ed. New Orleans: Spring Journal, 2003.

Connecticut Hospice - First Hospice in America. 06 Apr. 2010. Web. <http://www.hospice.com>.

Conze, Edward. "Introduction." Introduction. *Buddhist Scriptures*. By Ashvagosha. Harmondsworth, Middlesex: Penguin, 1959. 11-19.

Cooper, J. C. “Cow.” *An Illustrated Encyclopedia of Traditional Symbols*. New York: Thames and Hudson, 2005. 33-34.

---. “Crossroads.” *An Illustrated Encyclopedia of Traditional Symbols*. New York: Thames and Hudson, 2005. 46.

---. “Cypress.” *An Illustrated Encyclopedia of Traditional Symbols*. New York: Thames and Hudson, 2005. 48-49.

---. “Numbers.” *An Illustrated Encyclopedia of Traditional Symbols*. New York: Thames and Hudson, 2005. 112-20.

---. “Oak.” *An Illustrated Encyclopedia of Traditional Symbols*. New York: Thames and Hudson, 2005. 121.

---. “Rose/Rosette.” *An Illustrated Encyclopedia of Traditional Symbols*. New York: Thames and Hudson, 2005. 141-42.

Corbett, Lionel. *The Religious Function of the Psyche.* London: Routledge, 1996.

Cornell, Vincent J. “Teaching and Learning in the Qur'an.” *The Journal of Scriptural Reasoning* 5:3. October 2005. Web. 8 Nov. 2009.

Corr, Charles A., and David E. Balk. *Children's Encounters with Death, Bereavement, and Coping*. New York: Springer, 2010.

Councill, Tracy. “Medical Art Therapy with Children.” *Handbook of Art Therapy*. By Cathy A. Malchiodi. New York: Guilford, 2003. 207-19.

Cowan, Louise. “Epic as Cosmopoiesis.” Introduction. *The Epic Cosmos*. Ed. James Larry Allums and Louise Cowan. Dallas: Dallas Institute of Humanities and Culture, 1992. 1-26.

Cummings, Jeffrey L. and Bruce L. Miller. “Visual Hallucinations: Clinical Occurrence and Use in Differential Diagnosis.” *Western Journal of Medicine* 146.1 (1987): 46-51.

Czeisler, Charles A., Jeanne F. Duffy, Theresa L. Shanahan, Emery N. Brown, Jude F. Mitchell, David W. Rimmer, Joseph M. Ronda, Edward J. Silva, James S. Allan, Jonathan S. Emens, Derk-Jan Dijk, and Richard E. Kronauer. “Stability, Precision, and Near-24-Hour Period of the Human Circadian Pacemaker.” *Science* 284.5423 (June 1999): 2177-181.

Damasio, Antonio R. “Emotion in the Perspective of an Integrated Nervous System.” *Brain Research Reviews* 26 (1998): 83-86.

Datta, S., and R. Maclean. "Neurobiological Mechanisms for the Regulation of Mammalian Sleep - wake Behavior: Reinterpretation of Historical Evidence and Inclusion of Contemporary Cellular and Molecular Evidence." *Neuroscience & Biobehavioral Reviews* 31.5 (2007): 775-824.

Debiec, Jacek, and Joseph E. LeDoux. “Noradrenergic Signaling in the Amygdala Contributes to the Reconsolidation of Fear Memory: Treatment Implications for PTSD.” *Annals of the New York Academy of Sciences* 1071.1 (2006): 521-24.

DeCharms, R. Christopher, Fumiko Maeda, Gary H. Glover, David Ludlow, John M. Pauly, Deepak Soneji, John E. Gabrieli, and Sean C. Mackey. “Control over Brain Activation and Pain Learned by Using Real-time Functional MRI.” *Proceedings of the National Academy of Sciences* 102.51 (2005): 18626-8631.

Dement, William, and Nathaniel Kleitman. “The Relation of Eye Movements During Sleep to Dream Activity: An Objective Method for the Study of Dreaming.” *Journal of Experimental Psychology* 53.5 (1957): 339-46.

“Denial.” *A Dictionary of Psychology*. Colman, Andrew M., ed. Oxford: Oxford UP, 2009. *Oxford Reference Online*. 2 Nov. 2009.

Derrick, Jaye L., Shira Gabriel, and Kurt Hugenberg. “Social Surrogacy: How Favored Television Programs Provide the Experience of Belonging.” *Journal of Experimental Social Psychology* 45.2 (2009): 352-62.

Descartes, Rene. *Descartes: Meditations on First Philosophy*. Trans. Elizabeth S. Haldane. Charleston: Forgotten, 2008.

Dew, Mary Amanda, Carolyn C. Hoch, Daniel J. Buysse, Timothy H. Monk, Amy E. Begley, Patricia R. Houck, Martica Hall, David J. Kupfer, and Charles F. Reynolds III. “Healthy Older Adults' Sleep Predicts All-Cause Mortality at 4 to 19 Years of Follow-Up.” *Psychosomatic Medicine* 65.1 (2003): 63-73.

Dezendorf, Andrea, Kenneth Estrada, Greg Harrison, Steven Johnsen, Rory Kittelson, David Martin, Jennifer Myers, Joseph Orr, Nancy Peugh, Mike Stevens, and Tinman Walker. *There Is a Rainbow behind Every Dark Cloud*. Millbrae: Celestial Arts, 1979.

Dolin, Edwin. “Odysseus in Phaeacia.” *The Odyssey: A Verse Translation, Backgrounds,*

Criticism. By Homer, trans. Albert Spaulding Cook. New York: W.W. Norton, 1993. 383-90.

Domhoff, G. William. *Finding Meaning in Dreams: A Quantitative Approach*. New York: Plenum, 1996.

---. "Methods and Measures for the Study of Dream Content." *Principles and Practice of Sleep Medicine: Vol. 3*. By Meir H. Kryger, T. Roth, and William C. Dement. Philadelphia: Saunders, 2000. 463-71.

Doniger, Wendy. *The Implied Spider: Politics and Theology in Myth*. New York: Columbia UP, 1998.

Down, Gwynneth, and Jean Simons. "Communication." *Oxford Textbook of Palliative Care for Children*. By Ann Goldman, Richard Hain, and Stephen Liben. Oxford: Oxford UP, 2006. 28-41.

Drubach, Daniel A. "The Purpose of Neurobiology of Theory of Mind Functions." *Journal of Religion and Health* 47 (2008): 354-65.

Dumont, Richard G., and Denis C. Foss. *The American View of Death: Acceptance or Denial*. Cambridge: Schenkman, 1972.

Ebersole, Gary L. *Ritual Poetry and the Politics of Death in Early Japan*. Princeton: Princeton UP, 1992.

Eck, Diana. "Foreword." *American Buddhism: Methods and Findings in Recent Scholarship*. By Duncan Ryu?ken Williams and Christopher S. Queen. Richmond, Surrey: Curzon, 1999. ix-xi.

---. *A New Religious America: How a "Christian Country" Has Become the World's Most Religiously Diverse Nation*. New York: HarperOne, 2002.

Eckhart, Meister, James M. Clark, and John V. Skinner. *Treatises and Sermons of Meister Eckhart*. New York: Octagon, 1983.

Eco, Umberto. *Six Walks in the Fictional Woods*. Cambridge, MA: Harvard UP, 1994.

Edinger, Edward F. *Ego and Archetype: Individuation and the Religious Function of the Psyche*. Boston: Shambhala, 1991.

Eisenberger, N. I., Matthew D. Lieberman, and Kipling D. Williams. "Does Rejection Hurt? An FMRI Study of Social Exclusion." *Science* 302.5643 (2003): 290-92.

Eliade, Mircea. *The Sacred and the Profane: the Nature of Religion*. Trans. Willard R. Trask. New York: Harcourt Brace, 1959.

Elzinga, B. M., and J. D. Bremner. "Are the Neural Substrates of Memory the Final Common Pathway in Posttraumatic Stress Disorder (PTSD)?" *Journal of Affective Disorders* 70 (2002): 1-17.

Engelberg, Joseph. "On the Dynamics of Dying." *Integrative Physiological and Behavioral Science* 32.2 (1997): 143-48.

Enright, D. J. *The Oxford Book of Death*. Oxford [Oxfordshire]: Oxford UP, 1983.

Erikson, Erik H. *Identity and the Life Cycle*. New York: W. W. Norton &, 1994.

"Facts 2010-2011." *The Leukemia & Lymphoma Society*. 7 Oct. 2010. Web. 01 Dec. 2010. <http://www.leukemia-lymphoma.org>.

Feinberg, Todd E. *From Axons to Identity:Neurological Explorations of the Nature of the Self*. New York: W.W. Norton, 2009. Norton Ser. on Interpersonal Neurobiology.

Ffytche, Dominic H. "The hodology of hallucinations." *Cortex: A Journal Devoted to the Study of the Nervous System and Behavior* 44.8 (2008): 1067-83.

Finley, G. Allen, Linda S. Franck, Ruth E. Grunau, and Carl L. von Baeyer. "Why Children's Pain Matters." *Pain Clinical Updates: International Association for the Study of Pain* 13.4 (Sept. 2005): 1-6.

Fischer, Jill. *Case Report*. 2010. MS. C. G. Jung Institute of Boston, Boston.

Fogel, Alan. *The Psychophysiology of Self-Awareness: Rediscovering the Lost Art of Body Sense*. New York: Norton, 2009.

Foster, Benjamin Read, Douglas Frayne, and Gary M. Beckman. *The Epic of Gilgamesh: a New Translation, Analogues, Criticism*. New York: Norton, 2001.

Foucher, Arthur. *The Life of the Buddha: According to the Ancient Texts and Monuments of India*. Trans. Simone Brangier Boas. Middletown, CT: Wesleyan UP, 1963.

Frank, Arthur W. *The Wounded Storyteller: Body, Illness, and Ethics*. Chicago: University of Chicago P, 1995.

Fraser, J. T. *The Voices of Time: a Cooperative Survey of Man's Views of Time as Expressed by the Sciences and by the Humanities*. New York: G. Braziller, 1966.

Freud, Sigmund. *Beyond the Pleasure Principle*. Trans. C. J. M. Hubback. New York: Barnes & Noble, 2006.

Freud, Sigmund, and A. A. Brill. *The Interpretation of Dreams*. 4th ed. London: G. Allen & Unwin, 1915.

Freud, Sigmund, and James Strachey. *The Ego and the Id*. New York: Norton, 1962.

Fromm, Erich. *The Forgotten Language: An Introduction to the Understanding of Dreams, Fairy Tales, and Myths*. New York: Grove, 1951.

"The Genre Testament and the Testament of Abraham." *Studies on the Testament of Abraham*. Ed. Harry M. Orlinsky and George W.E. Nickelsburg, Jr. By Anitra Bingham Kolenkow. Vol. 6. Los Angeles: Scholars for The Society of Biblical Literature, 1972. 139-52. Society of Biblical Literature and Septuagint and Cognate Studies.

Gerson, Jean, and William James. "A Theology Called Mystical." *Mystics*. Ed. William Harmless. Oxford: Oxford UP, 2008. 3-18.

Gerstner, Louis V. "Sloan-Kettering - Acute Lymphoblastic Leukemia (ALL): Treatment." *Sloan-Kettering - Memorial Sloan-Kettering Cancer Center*. 9 Mar. 2006. Web. 16 Dec. 2010. <http://www.mskcc.org/mskcc/html/12251.cfm>.

Glaser, Barney G., and Anselm L. Strauss. *Awareness of Dying*. New Brunswick: Aldine Transaction, 2005.

Goss, Robert E., and Dennis Klass. "Buddhisms and Death." *Death and Religion in a*

Changing World. Armonk: M.E. Sharpe, 2006. 69-92.

Gower, Dona S. "Inanna and the Epic Eros: An Intertextual Perspective." *The Epic Cosmos*. By James Larry Allums and Louise Cowan. Dallas: Dallas Institute of Humanities and Culture, 1992. 229-330.

Greene, Thomas M. *The Descent from Heaven, a Study in Epic Continuity.* New Haven: Yale UP, 1963.

Groopman, Jerome E. *The Anatomy of Hope: How People Prevail in the Face of Illness*. New York: Random House, 2004.

---. *How Doctors Think*. Boston: Houghton Mifflin, 2007.

Gruen, Erich S. *Diaspora: Jews amidst Greeks and Romans*. Cambridge: Harvard UP, 2004.

Guthke, Karl Siegfried. *Last Words: Variations on a Theme in Cultural History*. Princeton, NJ: Princeton UP, 1992.

Gyatso, Tenzin, His Holiness the Fourteenth Dalai Lama. *Ethics for the New Millennium: His Holiness the Dalai Lama*. New York: Riverhead, 1999.

---. *The Compassionate Life*. Somerville: Wisdom, 2001.

Halifax, Joan, and Ira Byock. *Being with Dying: Cultivating Compassion and Fearlessness in the Presence of Death*. Boston: Shambhala, 2009.

Hall, Calvin S., and Robert L. Van De Castle. *The Content Analysis of Dreams*. New York: Appleton-Century Crofts, 1966. The Century Psychology Series.

Hamner, Karl C. "Experimental Evidence for the Biological Clock." *The Voices of Time: a Cooperative Survey of Man's Views of Time as Expressed by the Sciences and the Humanities*. By J. T. Fraser. New York: George Braziller, 1966. 281-95.

Hollander, Harm W. “The Testaments of the Twelve Patriarchs.” *Outside the Old Testament*. Ed. M. De Jonge. Vol. 4. Cambridge: Cambridge UP, 1985. 71-91. Cambridge Commentaries on Writings of the Jewish and Christian World 200 BC to 200 AD.

Harrington, Anne, and Arthur Zajonc, eds. *The Dalai Lama at MIT*. Cambridge, MA: Harvard UP, 2006.

Harris, Rivkah. *Gender and Aging in Mesopotamia: The Gilgamesh Epic and Other Ancient Literature*. Norman: U of Oklahoma P, 2000.

Harrison, E. L. “Notes on Homeric Psychology.” *The Phoenix* 14.2 (1960): 63-80.

Heidel, Alexander. *The Gilgamesh Epic and Old Testament Parallels.* Chicago: U of Chicago P, 1949.

Henderson, Mark C., and Lawrence M. Tierney. *The Patient History: Evidence-based Approach*. New York: Lange Medical /McGraw-Hill Medical Pub. Division, 2004.

Herring, Stanley. “Concepts of Pain.” Lecture. Symposium on Low Back Pain: Recent Insights in Causation and Treatment. University of Washington Medical Center, Seattle, WA. 14 Dec. 2010. *Www.researchchannel.org*. Web. 14 Dec. 2010.

<http://http://www.youtube.com/watch?v=L4MZ5i6KSkY>.

Hippocrates, and G. E. R. Lloyd. *Hippocratic Writings*. Trans. J. Chadwick and W. N. Mann. Middlesex, England: Penguin, 1986.

Hirabayash, Lane Ryo, Akemi Kikumura-Yano, and James A. Hirabayashi, eds. *New Worlds, New Lives: Globalization and People of Japanese Descent in the Americas and from Latin America in Japan*. Stanford: Stanford UP, 2002.

Hobson, J. Allan. *Dreaming: An Introduction to the Science of Sleep*. New York: Oxford UP, 2002.

Hoffmann, Yoel, comp. *Japanese Death Poems*. Boston: Tuttle, 1986.

Hollander, Harm W. "The Testaments of the Twelve Patriarchs." *Outside the Old Testament*. Ed. M. De Jonge. Vol. 4. Cambridge: Cambridge UP, 1985. 71-91. Cambridge Commentaries on Writings of the Jewish And Christian World 200 BC to 200 AD.

"homeostasis." *Merriam-Webster's Medical Dictionary*. Merriam-Webster, Inc. 04 Jan. 2011. <Dictionary.com http://dictionary.reference.com/browse/homeostasis>.

Homer, and Albert Spaulding Cook. *The Odyssey: A Verse Translation, Backgrounds, Criticism*. New York: W.W. Norton, 1993.

Hopkins, Jeffrey. *The Dalai Lama at Harvard*. Minneapolis: Snow Lion, 1989.

Hori, Ichiro. *Folk Religion in Japan: Continuity and Change*. Ed. Joseph M. Kitagawa and Alan L. Miller. Chicago: U of Chicago P, 1968.

Hughes, J. Donald. "Dream Interpretation in Ancient Civilizations." *Dreaming: Journal of the Association for the Study of Dreams* 10.1 (Mar. 2000): 7-18.

Hume, Robert Ernest. "An Outline of the Philosophy of the Upanishads." *The Thirteen Principal Upanishads: Translated from the Sanskrit With an Outline of The Philosophy of the Upanishads and an Annotated Bibliography*. Trans. Robert Ernest Hume. Oxford UP, 1921. 1-72.

"How Do You Know If Someone Is Close to Death?" *Home | Zen Hospice Project*. Web. 1 Nov. 2009. <http://www.zenhospice.org/>.

"Iatrogenic." *Collins English Dictionary Complete & Unabridged 10th Edition*. Harper Collins, 2010. Web. 15 Dec. 2010. <http://dictionary.reference.com>.

Ichikawa, Sanki. *Haikai and Haiku.* Tokyo: Nippon Gakujutsu Shinkokai, 1958.

James, William. "What Is an Emotion?" *Mind* 9.34 (Apr. 1884): 188-205.

Jennings, Bruce. "How Americans Want to Die - Grassroots Values and Cultural Diversity." *Ethical Dilemmas at the End of Life*. Washington, DC: Hospice Foundation of America, 2005. 85-99.

Johnston, D. L., K. Nagel, D. L. Friedman, J. L. Meza, C. A. Hurwitz, and S. Friebert. "Availability and Use of Palliative Care and End-of-Life Services for Pediatric Oncology Patients." *Journal of Clinical Oncology* 26.28 (2008): 4646-650.

Jones, Rufus Matthew. *New Studies in Mystical Religion: the Ely Lectures Delivered at*

Union Theological Seminary, New York, 1927. Whitefish: Kessinger, 2006.

Joseph, Rhawn. "The Limbic System and The Soul: Evolution and the Neuroanatomy of Religious Experience." *Zygon* 36.1 (March 2001): 105-36.

Jouvet, Michel. *The Paradox of Sleep: The Story of Dreaming*. Cambridge: MIT, 1999.

Jung, C. G. "Aion: Researches into the Phenomenology of the Self." Trans. R. F. C. Hull. *The Collected Works of C. G. Jung*. Vol. 9ii. Bollingen Series 20. Princeton: Princeton UP, 1968.

---. "Alchemical Studies." Trans. R. F. C. Hull. *The Collected Works of C. G. Jung*. Vol. 13. Bollingen Series 20. Princeton: Princeton UP, 1970.

---. "The Archetypes of the Collective Unconscious." Trans. R. F. C. Hull. *The Collected Works of C.G. Jung.* Vol. 9i. Bollingen Series 20. Princeton: Princeton UP, 1969.

---. "Civilization in Transition." Trans. R. F. C. Hull. *The Collected Works of C. G. Jung.* Vol. 10. Bollingen Series 20.Princeton: Princeton UP, 1978.

---. "The Development of Personality." Trans. R. F. C. Hull. *The Collected Works of C. G. Jung.* Vol. 17. Bollingen Series 20.Princeton: Princeton UP, 1981.

---. *The Earth Has a Soul: The Nature Writings of C. G. Jung*. Ed. Meredith Sabini. Berkeley: North Atlantic, 2005.

---. *Memories, Dreams, Reflections*. Trans. Aniela Jaffe?. New York: Vintage, 1989.

---. "Psychology and Religion: West and East." Trans. R. F. C. Hull. *The Collected Works of C. G. Jung.* Vol. 11. Bollingen Series 20. Princeton: Princeton UP, 1969.

---. "The Spirit in Man, Art, and Literature." Trans. R. F. C. Hull. *The Collected Works of C.G. Jung*. Vol. 15. Bollingen Seres. 20. New York: Pantheon, 1966.

---. "Symbols of Transformation." Trans. R. F. C. Hull. *The Collected Works of C.G. Jung.* Vol. 5. Bollingen Series 20. Princeton, N.J.: Princeton UP, 1990.

---. "The Structure and Dynamics of the Psyche." Trans. R. F. C. Hull. *The Collected Works of C. G. Jung* Vol. 8. Bollingen Series 20. Princeton: Princeton UP, 1969.

---. "The Symbolic Life: Miscellaneous Writings." Trans. R. F. C. Hull. *The Collected Works of C. G. Jung.* Vol. 18. Bollingen Series 20. Princeton, N.J.: Princeton UP, 1976.

Jung, C. G., and Jenny L. Yates. *Jung on Death and Immortality*. Princeton, NJ: Princeton UP, 1999.

Jung, C. G., Mary Foote, Henry A. Murray, and Peter Redgrove. *The Visions Seminars: from the Complete Notes of Mary Foote.* Zu?rich: Spring Publications, 1976.

Kapleau, Philip. *The Wheel of Life and Death: A Practical and Spiritual Guide*. New York: Doubleday, 1989.

Kastenbaum, Robert. *The Psychology of Death*. 3rd ed. New York: Springer, 2000.

Katz, Joseph. "Einstein's Three Dreams: Moral Conflicts and Life Crises of the New Prometheus." *Psychoanalytic Review* 77 (1990): 351-74.

Kearney, Michael. *Mortally Wounded: Stories of Soul Pain, Death, and Healing*. New York: Scribner, 1996.

Keene, Donald, trans. *The Manyoshu: The Nippon Gakujutsu Shinkoksi Translation of One Thousand Poems, with the Texts in Romaj*i. New York: Columbia UP, 1965.

Keleman, Stanley, and Joseph Campbell. *Myth and the Body: A Colloquy with Joseph Campbell*. Berkeley: Center, 2000.

Kendler, Kenneth S. "Toward a Philosophical Structure for Psychiatry." *American Journal of Psychiatry* 162.3 (2005): 433-40.

Kennedy-Xipolitas, Emmanuel. "Foreward to the Open Court Edition." *On Dreams & Death: A Jungian Interpretation*. By Marie-Louise von Franz. Trans. Emmanuel Kennedy-Xipolitas and Vernon Brooks. Chicago, IL: Open Court, 1998. vii-xiv.

Kessel, N. "Reassurance." *The Lancet* 313.8126 (1979): 1128-133.

Kessels, A. H. M. "Ancient Systems of Dream-Classification." *Mnemosyne* Fourth Series 22.Fasc. 4 (1969): 389-424. Web. 3 July 2010. <http://www.jstor.org/stable/4429782>.

Kluger, Rivkah S. *The Archetypal Significance of Gilgamesh: A Modern Ancient Hero*. Einsiedeln: Daimon-Verl., 1991.

Knappert, Jan. *Islamic Legends: Histories of the Heroes, Saints, and Prophets of Islam*. Vol. 15. Leiden: E.J. Brill, 1985.

Kolenkow, Anitra Bingham. "The Genre Testament and the Testament of Abraham." *Studies on the Testament of Abraham*. Ed. Harry M. Orlinsky and George W.E. Nickelsburg, Jr. Vol. 6. Los Angeles: Scholars for The Society of Biblical Literature, 1972. 139-52.

Kornfield, Jack. "American Buddhism." *The Complete Guide to Buddhist America*. Ed. Don Morreale. Boston: Shambala, 1998. xxi-xxx.

Kovacs, Maureen Gallery. *The Epic of Gilgamesh*. Stanford: Stanford UP, 1989.

Kramer, Kenneth. *Sacred Art of Dying How World Religions Understand Death*. New York: Paulist, 1988.

Kringelbach, Morten L., and Edmund T. Rolls. "The Functional Neuroanatomy of the Human Orbitofrontal Cortex: Evidence from Neuroimaging and Neuropsychology." *Progress in Neurobiology* 72.5 (2004): 341-72.

Ku?bler-Ross, Elisabeth. *On Death and Dying.* New York: Macmillan, 1969.

---. "Preface." *Living in the Face of Death: The Tibetan Tradition*. By Glenn H. Mullin. Ithaca: Snow Lion, 1998. 11-13.

Kutas, Marta, and K. Federmeier. "Minding the Body." *Psychophysiology* 35 (1998): 135-50.

"Lab for Affective Neuroscience:What We Do." *Laboratory for Affective Neuroscience, UW-Madison Psychology Dept*. 05 Web. Apr. 2010. <http://psyphz.psych.wisc.edu/>.

Laino, Charlene. "Cancer Patients Want Honesty From Doctors." *WebMD - Better Information. Better Health.* 4 Nov. 2009. Web. 9 Nov. 2009.

<http://www.webmd.com/cancer/news/20091104/cancer-patients-want-honesty-from-doctors>.

Lancaster, Lewis. “Buddhism and Ecology: Collective Cultural Perceptions.” Ed. Duncan Ryuken Williams. *Buddhism and Ecology: The Interconnection of Dharma and Deeds*. Ed. Mary Evelyn Tucker. Cambridge: Harvard UP, 1997. 3-20.

Larsson, J. P. *Understanding Religious Violence: Thinking outside the Box on Terrorism*. Aldershot: Ashgate, 2004.

"Last Days of Life - National Cancer Institute." *Comprehensive Cancer Information - National Cancer Institute*. 31 Aug. 2010. Web. 7 Nov. 2009. <http://www.cancer.gov/cancertopics/pdq/supportivecare/lasthours/Patient/page2#Keypoint21>.

Lazar, Sara. “Meditation Research.” *Martinos Center*. Massachusetts General Hospital/Harvard University. Web. 05 Apr. 2010. <http://www.nmr.mgh.harvard.edu/~lazar/>.

LeDoux, Joseph E. *The Emotional Brain: the Mysterious Underpinnings of Emotional Life*. New York: Simon & Schuster, 1996.

---.“Fear and the Brain: Where Have We Been, and Where Are We Going?” *Biological Psychiatry* 44 (1998): 1229-238.

---. *Synaptic Self: How Our Brains Become Who We Are*. New York: Penguin, 2003.

Leick, Gwendolyn. *A Dictionary of Ancient Near East Mythology*. London: Routledge, 1991.

Lewis, Naphtali. *The Interpretation of Dreams and Portents*. Toronto: Stevens, 1976.

Lloyd, G.E.R. "Inroduction." Introduction. *Hippocratic Writings*. By Hippocrates. Trans. J. Chadwick and W. N. Mann. Middlesex, England: Penguin, 1986.

Luisi, Pier Luigi, and Zara Houshmand. *Mind and Life: Discussions with the Dalai Lama on the Nature of Reality*. New York: Columbia UP, 2009.

Loeser, John D., and Rolf-Detlef Treede. “The Kyoto Protocol of IASP Basic Pain Terminology.” *Pain* 137.3 (2008): 473-77.

Lokhorst, Gert-Jan. “Descartes and the Pineal Gland.” *Stanford Encyclopedia of Philosophy*. 5 Nov. 2008. Web. 21 July 2010. <http://plato.stanford.edu>.

Longrigg, James. *Greek Medicine: From the Heroic to the Hellenistic Age: A Source Book*. New York: Routledge, 1998.

Ludlow, Jared. *Abraham Meets Death: Narrative Humor in the Testament of Abraham*. London: Sheffield Academic Press, 2002.

Luisi, P. L., and Zara Houshmand. *Mind and Life: Discussions with the Dalai Lama on the Nature of Reality*. New York: Columbia UP, 2009.

Lynn, Joanne. “Symptoms During a Fatal Illness: Death and Dying: Merck Manual Home Edition.” *Merck & Co., Inc. Is a Global Research-driven Pharmaceutical Products Company.* Oct. 2007. Web. 06 Jan. 2011.

<http://www.merckmanuals.com/home/sec01/ch008/ch008f.html>.

Malcolm-Smith, Susan, and Mark Solms. "Incidence of Threat in Dreams: A Response to Revonsuo's Threat Simulation Theory." *Dreaming* 14.4 (2004): 220-29.

Malone, M. M. "Consciousness of Dying and Projective Fantasy of Young Children with Malignant Disease." *Journal of Developmental & Behavioral Pediatrics* 3.2 (June 1982): 55-60.

"Mandukya Upanishad." *Academy for Ancient Texts. Ancient Texts Library.* Trans. Sri Aurobindo. Web. 07 Feb. 2011. <http://www.ancienttexts.org/library/indian/upanishads/mandu.html>.

Martin, Andrés. "Child Mental Health-Centered Cancer Care Across the Lifespan." The Jerome Medalie End of Life Issues Study Group. Yale University, New Haven. 5 Oct. 2010. Lecture.

Martin, John. "Foreword." *Cancer in Children and Young People: Acute Nursing Care*. By Faith Gibson and Louise Sloanes. Chichester, England: John Wiley & Sons, 2008. xv.

Mazis, Glen A. "Psyche and Nature: Tower and Lake, Yin and Yang, Archetype and Earth." *Spring 75: Psyche and Nature: A Journal of Archetype and Culture, Part 1* 75 (Fall 2006): 1-22.

McClain, Brenda C. "Hospital-Based Pain Care for Infants and Children." *Bringing Pain Relief to Children: Treatment Approaches*. By G. Allen Finley, Patrick J. McGrath, and Christine T. Chambers. Totowa: Humana, 2006. 1-30.

McConkey, James. *The Anatomy of Memory: An Anthology*. New York: Oxford UP, 1996.

McGuire, Francis A., Rosangela Boyd, and Ann James. *Therapeutic humor with the elderly*. Binghamton: Hayworth, 1993.

McLean, Margot. "Art and Nature: Thoughts in and out of the Studio." *Spring 75: Psyche and Nature: A Journal of Archetype and Culture, Part 1* (Fall 2006): 107-20.

McNamara, Patrick. *An Evolutionary Psychology of Sleep and Dreams*. Westport: Praeger, 2004.

McNamara, Patrick, Deirdre McLaren, Dana Smith, Ariel Brown, and Robert Stickgold. "A "Jekyll and Hyde" Within: Aggressive Versus Friendly Interactions in REM and Non-REM Dreams." *Psychological Science* 16 (2005): 130-36.

Meltzer, E. O., M. J. Welch, and N. K. Ostrom. "Pill Swallowing Ability and Training in Children 6 to 11 Years of Age." *Clinical Pediatrics* 45.8 (2006): 725-33.

Melville, Herman. *Moby Dick: Or, The Whale*. Ed. Hershel Parker and Harrison Hayford. 2nd ed. New York: Norton, 2001. Norton Critical Edition.

Mermann, Alan. *To Do No Harm.* Amherst: Humanity, 1999.

Miller, Michael, and William F. Fry. "The effect of mirthful laughter on the human cardiovascular system." *Medical Hypotheses* 73.5 (2009): 636-39.

Miller, Patricia Cox. *Dreams in Late Antiquity: Studies in the Imagination of a Culture*.

Princeton: Princeton UP, 1994.

Mitchell, Stephen. *Gilgamesh: A New English Version*. New York: Free, 2004.

Morris, Charles G.; Maisto, Albert A. *"The Limbic System". Psychology: An Introduction*12th Ed. © 2005. Reprinted by permission of Pearson Education, Inc. Upper Saddle River, N.J.*,* <http://*CW*x.prenhall.com/bookbind/pubbooks/morris5/chapter2/custom1/deluxe-content.html>.

---. "A Schematic Diagram of the Divisions of the Nervous System and Their Various Subparts". *Psychology: An Introduction* 12th Ed. © 2005. Reprinted by permission of Pearson Education, Inc. Upper Saddle River, N.J. <http://*CW*x.prenhall.com/bookbind/pubbooks/morris5/chapter2/custom1/deluxe-content.html>.

Morrison, Toni. *Beloved: A Novel*. New York: New American Library, 1987.

---. "Memory, Creation, and Writing." *The Anatomy of Memory: An Anthology*. By James McConkey. New York: Oxford UP, 1996. 212-18.

Mullin, Glenn H. *Living in the Face of Death: The Tibetan Tradition*. Ithaca: Snow Lion, 1998.

"Neuron Synapse « Anthropology.net." *Anthropology.net*. 20 Jan. 2008. Web. 06 Nov. 2009. <http://anthropology.net/2008/01/20/dopamine-transporter-gene-and-primate-social-behavior/neuron-synapse/>.

Newman, John D. "Neural Circuits Underlying Crying and Cry Responding in Mammals." *Behavioural Brain Research* 182.2 (2007): 155-65.

Newman, Paul. Introduction. *I Will Sing Life: Voices from the Hole in the Wall Gang Camp*. By Larry Berger, Dahlia Lithwick, and Robert Benson. Boston: Little, Brown, 1992. ix-xiii.

Nha??t Ha?nh, Thich. *Old Path, White Clouds: Walking in the Footsteps of the Buddha*. Berkeley: Parallax, 1991.

"NIMH · Research into Causes and Treatment of Autism Spectrum Disorders." *NIMH · Home*. 5 Feb. 2009. Web. 02 Apr. 2011. <http://www.nimh.nih.gov/>.

Nir, Yehuda. "Post-Traumatic Strress Disorder in Children with Cancer." *Post-traumatic Stress Disorder in Children*. Ed. Spencer Eth and Robert S. Pynoos. Washington, DC: American Psychiatric, 1985. 121-32.

Nuland, Sherwin B. *How We Die: Reflections on Life's Final Chapter*. New York: A.A. Knopf, 1994.

O., Yasumaro. *Translation of "Ko/ji/ki" of Records of Ancient Matters*. Trans. Basil Hall Chamberlain and W. G. Aston. 2nd ed. Kobe: J. L. Thompson, 1883.

Oden, Robert A. "Jacob as Father, Husband, and Nephew: Kinship Studies and the Patriarchal Narratives." *Journal of Biblical Literature* 102.2 (Jun.1983): 189-205. *JSTOR*. The Society of Biblical Literature. 20 Dec. 2009. <http://www.jstor.org/stable/3261157>.

Old, Hughes Oliphant. *The Reading and Preaching of the Scriptures in the Worship of the Christian Church.* Vol. 3: The Medieval Church. Grand Rapids: Wm. B. Eerdmans, 1999.

"Om." *Encyclopædia Britannica. Encyclopædia Britannica Online*. Encyclopædia Britannica, 2011. Web. 02 Apr. 2011. <http://www.britannica.com/EBchecked/topic/428173/Om>.

Otto, Rudolf. *The Idea of the Holy: An Inquiry into the Non-rational Factor in the Idea of the Divine and its Relation to the Rational*. London: Oxford UP, 1973.

Palyo, Sarah A., and J. Gayle Beck. "Post-traumatic Stress Disorder Symptoms, Pain, and Perceived Life Control: Associations with Psychosocial and Physical Functioning." *Pain* 117.1-2 (2005): 121-27.

Panksepp, J., B. Herman, T. Vilberg, P. Bishop, and F. Deeskinazi. "Endogenous Opioids and Social Behavior." *Neuroscience & Biobehavioral Reviews* 4.4 (1980): 473-87.

Panksepp, Jaak. "Interview with Dr. Jaak Panksepp, Author of Affective Neuroscience: The Foundations of Human and Animal Emotions." Interview by Ginger Campbell, M.D. *Brain Science Podcast*. Www.sciencepodcasters.org, 13 Jan. 2010. Web. 4 Dec. 2010. <http://www.sciencepodcasters.org/imported-20101024203010/2010/1/13/brain-science-podcast-65-affective-neuroscience.html>. Episode 65.

Payne, David K., and Mary Jane Massie. "Anxiety in Palliative Care." *Handbook of Psychiatry in Palliative Medicine*. By Harvey Max. Chochinov and William Breitbart. Oxford: Oxford UP, 2000. 63-74.

Peretz, Bert. "A Phylogenetic Purview of Aging: Summary of a Workshop on a Comparative Approach to the Neurobiology of Aging." *Neurobiology of Aging* 11.6 (Nov.-Dec. 1990): 655-57.

The Pew Forum on Religion & Public Life, Washington, DC, ''U.S. Religious Landscape Survey.'' 30 Oct. 2009. Feb. 2008. < http://religions.pewforum.org/reports> .

Pitzele, Peter. *Our Fathers' Wells: A Personal Encounter with the Myths of Genesis*. San Francisco: HarperSanFrancisco, 1995.

Plato, and David Gallop. *Phaedo*. Oxford: Clarendon, 1975.

Porter, J. R. "Muhammad's Journey to Heaven." *Numen* 21.Fasc. 1 (Apr.1974): 64-80. *JSTOR*. Brill. 20 Dec. 2009. <http://www.jstor.org/stable/3269714>.

"Post-Traumatic Stress Disorder." *Diagnostic and Statistical Manual of Mental Disorders: DSM-IV-TR.* Washington, DC: American Psychiatric Association, 2000. United States Department of Veterans Affairs, 25 June 2010. Web. 15 Dec. 2010. <http://www.ptsd.va.gov/professional/pages/dsm-iv-tr-ptsd.asp>.

"Post-Traumatic Stress Disorder (PTSD)." *National Institute of Mental Health*. National Institute of Mental Health/National Institutes of Health, 10 Dec. 2010. Web. 11 Dec. 2010. <http://www.nimh.nih.gov/health/topics/post-traumatic-stress-disorder-ptsd/index.shtml>.

Power, Thomas G. "Stress and Coping in Childhood: The Parents' Role." *Parenting:*

Science and Practice 4.4 (2004): 271-317.

Prebish, Charles. “The Cybersangha: Buddhism on the Internet.” *Religion Online: Finding Faith on the Internet*. Ed. Lorne L. Dawson and Douglas E. Cowan. New York: Routledge, 2004. 135-48.

Pufall, Peter B., and Richard P. Unsworth. *Rethinking Childhood*. New Brunswick: Rutgers UP, 2004.

Quinodoz, Jean-Michel. *The Taming of Solitude: Separation Anxiety in Psychoanalysis*. Ed. Elizabeth Bott Spillius. Trans. Philip Slotkin. London: Routledge, 2005.

Raad, Shukria Alimi. "Grief: A Muslim Perspective." *Living with Grief: Who We Are, How We Grieve*. By Kenneth J. Doka and Joyce Davidson. Washington, DC: Hospice Foundation of America, 1998. 47-56.

Rabinowicz, H. and Reuben Kashani. “Death.” Encyclopaedia Judaica. Ed. Michael Berenbaum and Fred Skolnik. Vol. 5. 2nd ed. Detroit: Macmillan Reference USA, 2007. 510-513.

Ray, Gillian. “NACHRI & N.A.C.H. | CHCA, NACHRI and N.A.C.H. to Unite as Catalyst for Improving Children's Health Care.” *NACHRI & N.A.C.H. HOME*. 2 Dec. 2010. 14 Dec. 2010. <http://www.childrenshospitals.net/AM/Template.cfm?Section=Public_Relations1&TEMPLATE=/CM/ContentDisplay.cfm&CONTENTID=54567>.

Reissman, L. “Awareness of Dying by Barney G. Glaser and Anselm L. Strauss.” *The Annals of the American Academy of Political and Social Science* 366.1 (1966): 202-03.

Remen, Rachel N. “The Healer's Art.” *The Healer’s Art*. Commonweal Cancer Help Center. Web. 4 May 2009. <http://commonweal.org/ishi/programs/healers_art.html>.

Remen, Rachel Naomi, and Krista Tippett. “Listening Generously, The Medicine of Rachel Naomi Remen [Speaking of Faith® from American Public Media].” *Krista Tippett on Being: Religion, Faith, Meaning, Ethics, and Ideas on Public Radio and Online*. National Public Radio, 27 Nov. 2008. Web. 30 Apr. 2009. <http://being.publicradio.org/programs/2008/listening_generously/>.

Remen, Rachel Naomi. “Generous Listening for Clinicians.” Personal interview. 7 June 2008.

Revonsuo, Antti. "The Reinterpretation of Dreams: An Evolutionary Hypothesis of the Function of Dreaming." *Behavioral and Brain Sciences* 23.6 (Dec. 2000): 877-901; 904-1018; 1083-1121.

Ricoeur, Paul. *History and Truth*. Evanston: Northwestern UP, 2007.

Rinpoche, Dzogchen Ponlop. “Are You Ready For Death?” *Buddhadharma: The Practitioners Quarterly* (Summer 2007): 24-31.

Rinpoche, Sogyal. *The Tibetan Book of Living and Dying*. Ed. Patrick Gaffney and Andrew Harvey. San Francisco: Harper San Francisco, 1994.

Saarela, Miimaaria V., Yevhen Hlushchuk, Amanda C. DeC. Williams, Martin Schurmann, Eija Kalso, and Riitta Hari. “The Compassionate Brain: Humans Detect

Intensity of Pain from Another's Face." *Cerebral Cortex* 17 (2007): 230-37.

Sabini, Meredith. "Temple to Gravity." *Spring 75: Psyche and Nature: A Journal of Archetype and Culture, Part 1* (Fall 2006): 139-54.

Samuels, Andrew, Bani Shorter, and Fred Plaut. *A Critical Dictionary of Jungian Analysis.* London: Routledge & Kegan Paul, 1986.

Sanders, E. P. "The Testament of Abraham." *Outside the Old Testament*. Ed. Marinus De Jonge. Vol. 4. Cambridge: Cambridge UP, 1985. 56-70. Cambridge Commentaries on Writings of the Jewish and Christian World.

Sanders, Mary Anne. *Nearing Death Awareness: A Guide to the Language, Visions and Dreams of the Dying*. London: Jessica Kingsley, 2007.

Scharff, David E., ed. *The Psychoanalytic Century: Freud's Legacy for the Future*. New York: Other, 2001.

Schechter, Neil L., Charles B. Berde, and Myron Yaster. *Pain in Infants, Children, and Adolescents*. Philadelphia: Lippincott Williams & Wilkins, 2003.

Schore, Allan N. "The Experience-dependent Maturation of an Evaluative System in the Cortex." *Brain and Values: Is a Biological Science of Values Possible; Proceedings of the Fifth Appalachian Conference on Behavioral Neurodynamics*. By Karl H. Pribram. Mahwah: Lawrence Erlbaum Associates, 1998. 337-58.

Schum, Lisa N., and Javier R. Kane. "Chapter 196: Psychological Adaptation of the Dying Child." *Palliative Medicine*. By Declan Walsh. Philadelphia: Saunders/Elsevier, 2009.

Shields, Christopher. "Aristotle (Stanford Encyclopedia of Philosophy)." *Stanford Encyclopedia of Philosophy*. 25 Sept. 2008. 23 July 2010. <http://plato.stanford.edu/entries/aristotle/>.

Shuldham, C.M., G. Cunningham, M. Hiscock, and P. Luscombe. "Assessment of Anxiety in Hospital Patients." *Journal of Advanced Nursing* 22.1 (1995): 87-93.

Siegel, Daniel J. *The Developing Mind: How Relationships and the Brain Interact to Shape Who We Are*. New York: Guilford, 1999.

---. *The Mindful Brain: Reflection and Attunement in the Cultivation of Well-being*. New York: W.W. Norton, 2007.

---. "Mindsight: The New Science of Personal Transformation." Lecture. *Google Personal Growth Series*. Google Tech Talks, 23 Apr. 2009. 21 Feb. 2010. <http://www.youtube.com/watch?v=Gr4Od7kqDT8>.

---. *Mindsight the New Science of Personal Transformation*. New York: Bantam, 2010.

Slattery, Dennis Patrick. "The Narrative Play of Memory in Epic." *The Epic Cosmos*. Ed. James Larry Allums and Louise Cowan. Dallas: Dallas Institute of Humanities and Culture, 1992. 331-352.

---. *Syllabus Notes*. 2005. The Epic Imagination. Pacifica Graduate Institute, Carpinteria, CA.

---. *The Wounded Body: Remembering the Markings of Flesh*. Albany: State U of New York P, 2000.

Smith, Huston, and Philip Novak. *Buddhism: A Concise Introduction*. New York: HarperCollins, 2003.

Smith, Huston. *The World's Religions: Our Great Wisdom Traditions*. San Francisco: Harper San Francisco, 1991.

---. *Death and Transformation: The Personal Reflections of Huston Smith, Autumn 2006*. Perf. Huston Smith. Fons Vitae, US, 2007. DVD.

Smith, Kurt. "Descartes' Life and Works." *Stanford Encyclopedia of Philosophy*. Stanford University, 27 Feb. 2007. Web. 11 July 2010. <http://plato.stanford.edu/entries/descartes-works>.

Solms, Mark. "Dreaming and REM Sleep Are Controlled by Different Brain Mechanisms." *Behavioral and Brain Sciences* 23 (2000): 793-850.

Solomon, Lewis D. *The Jewish Book of Living and Dying*. Northvale: Jason Aronson, 1999.

---. *The Jewish Tradition and Choices at the End of Life: a New Judaic Approach to Illness and Dying*. Lanham: UP of America, 2001.

Spivey, Michael. *The Continuity of the Mind*. Oxford: Oxford UP, 2007.

Steinhauser, Karen, and James A. Tulsky. *Outlook: An Intervention to Improve Quality of Life in Serious Illness*. *Clinical Trials*. U.S. National Institutes of Health, 14 Mar. 2010. 5 Apr. 2010. <http://www.clinicaltrials.gov>.

Stern, Max M. "On Human Behavior and the Fear of Death." *The Life-threatened Elderly*. By Margot Tallmer. New York: Columbia UP, 1984. 8-16.

Stillion, Judith M., and Danai Papadatou. "Suffer the Children: An Examination of Psychosocial Issues in Children and Adolescents with Terminal Illness." *American Behavioral Scientist* 46.2 (October 2002): 299-315.

Stuber, Margaret L., and Brenda Bursch. "Psychiatric Care of the Terminally Ill Child." *Handbook of Psychiatry in Palliative Medicine*. By Harvey Max Chochinov and William Breitbart. Oxford: Oxford UP, 2000. 255-64.

"T'ai Chi." *Dictionary.com*. Random House. Web. 19 Jan. 2011. <http://dictionary.reference.com/>.

Telushkin, Joseph. *Jewish Literacy: the Most Important Things to Know about the Jewish Religion, It's People, and Its History*. New York: William Morrow, 2008.

Thompson, R. Campbell, trans. *The Epic of Gilgamesh*. Oxford: Oxford Clarendon, 1930.

"Three Decades of Mass Immigration: The Legacy of the 1965 Immigration Act." Center for Immigration Studies, Sept. 1995. Web. 24 Mar. 2010. <www.cis.org>.

Thurman, Robert A. F. "Boardroom Buddhism:Right Livelihood: A Modern Fold of the Eightfold Path." *The Buddha: Writings on the Enlightened One*. Ed. Tom Morgan. Novato: New World Library, 2002. 119-27.

Tolstoy, Leo. *The Death of Ivan Ilyich and Other Stories*. Trans. Richard Pevear and Larissa Volokhonsky. New York: Alfred A. Knopf, 2009.

Trainor, Kevin. "The Career of Siddhartha: The Buddha's Biography." *Buddhism: The Illustrated Guide*. Ed. Kevin Trainor. Oxford: Oxford UP, 2001. 22-45.

United States. Centers for Disease Control. Division of Vital Statistics: U.S. Department of Health and Human Services. *Deaths: Final Data for 2002*. By Kenneth D. Kochanek, Sherry L. Murphy, Robert N. Anderson, and Chester Scott. 5th ed. Vol. 53. Oct. 12, 2004. National Vital Statistics Reports.

U.S. Census Bureau. *American Community Survey, U.S. Census Bureau: Selected Population Group:* Washington, DC: U.S. Dept. of Commerce, Economics and Statistics Administration, U.S. Census Bureau, 2005. *Japanese Alone or in Any Combination*.

Van De Castle, Robert L. *Our Dreaming Mind*. New York: Ballantine, 1995.

Varela, Francisco J. "The Importance of the Encounter with Buddhism for Modern Science." Mind and Life Institute, 2007. Web. 3 Mar. 2010. <http://www.mindandlife.org/about/hhdl-mli/buddhism-and-modern-science/>

Varley, Paul. "Cultural life in medieval Japan." Medieval Japan. Ed. Kozo Yamamura. Cambridge University Press, 1990. Cambridge Histories Online. Cambridge: Cambridge UP. 20 Jan. 2011 DOI:10.1017/CHOL9780521223546.012

Verrier, Richard L., James E. Muller, and J. Allan Hobson. "Sleep, Dreams, and Sudden Death: the Case for Sleep as an Autonomic Stress Test for the Heart." *Cardiovascular Research* 31 (1996): 181-211.

Von Franz, Marie-Louise. "Archetypes Surrounding Death." *Quadrant* 12 (1978): 5-23.

---. *Dreams*. Boston: Shambhala, 1991.

---. *On Dreams & Death: a Jungian Interpretation*. Trans. Emmanuel Kennedy-Xipolitas and Vernon Brooks. Chicago: Open Court, 1998.

---. *Time: Rhythm and Repose*. New York: Thames and Hudson, 1979.

Waechter, Eugenia H. "Dying Children: Patterns of Coping." *Childhood and Death*. By Hannelore Wass and Charles A. Corr. Washington, DC: Hemisphere, 1984.

Walpola, Sri Rahula. "Siddhartha Gautama: A Very Brief Biography." *The Buddha: Writings on the Enlightened One*. Ed. Tom Morgan. Novato, CA: New World Library, 2002. 23-24.

---. *What the Buddha Taught*. New York: Grove, 1974.

Warner, Gale, David Kreger, and Bernie Siegel. *Dancing at the Edge of Life: A Memoir*. New York: Hyperion, 1998.

Weisman, Steven J., Bruce Bernstein, and Neil L. Schecter. "Consequences of Inadequate Analgesia During Painful Procedures in Children." *Archives of Pediatrics and Adolescent Medicine* 152.2 (Feb. 2008): 147-49.

Weiss, Robert Stuart, and John Bowlby. *Loneliness: The Experience of Emotional and Social Isolation [by] Robert S. Weiss, with Contributions by John Bowlby [et al.]*.

Cambridge: MIT P, 1973.

Welman, M., and Phillip A. Faber. “The Dream in Terminal Illness: A Jungian Formulation.” *Journal of Analytical Psychology* 37: 61-81.

Wheelwright, Jane Hollister. *The Death of a Woman*. New York: St. Martin's, 1981.

White, Robert J. “Translator's Preface to the First Edition.” Preface. *The Interpretation of Dreams = Oneirocritica*. By Artemidorus. Torrance: Original, 1990. 5-6.

Wiens, Stefan. “Interoception in emotional experience.” *Current Opinion in Neurology* 18.4 (2005): 442-47.

Wittenberg, Stephen M., and Lewis M. Cohen. “Max Schur, M.D., 1897-1969.” *American Journal of Psychiatry* 159.2 (2002): 216.

“Worship of Mountains.” *Kodansha Encyclopedia of Japan*. Tokyo: Kodansha, 2000. Web. 03 Dec. 2008. <http://www.ency-japan.com>.

Wuthnow, Robert, and Wendy Cadge. “Buddhists and Buddhism in the United States: The Scope of Influence.” *Journal for the Scientific Study of Religion* 43.3 (6 Aug 2004): 363-80.

Yalom, Irvin D. *Staring at the Sun: Overcoming the Terror of Death*. San Francisco: Jossey-Bass, 2008.

Yates, J., and C. G. Jung. *Jung on Death and Immortality*. Princeton: Princeton UP, 1999.

Yennurajalingam, Sriram, and Eduardo Bruera. “Palliative management of fatigue at the close of life: ‘it feels like my body is just worn out’.” *Journal of the American Medical Association* 297.3 (2007): 295-304.

Zadra, Antonio, Sophie Desjardins, and Eric Marcotte. “Evolutionary Function of Dreams: A Test of the Threat Simulation Theory in Recurrent Dreams.” *Consciousness and Cognition* 15.2 (June 2006): 450-63.

Appendix C: List of Chapter Subsections

Notes

1 Homeostasis: “the maintenance of relatively stable internal physiological conditions (as body temperature or the pH of blood) in higher animals under fluctuating environmental conditions” (“homeostasis” Merriam-Webster’s Medical Dictionary).

2 Functional magnetic resonance imaging (fMRI) : a means of using technology to observe blood flow in the living brain to determine areas of activity.

3 Neuronal refers to the neuron, the most basic cellular structure in the human nervous system.

4 Dolin’s use of the words “brain” and “tongue” does not refer to the actual physiologic organs as we know them today nor does it imply a lack of feeling or emotion on the part of Odysseus. In his article entitled “Notes on Homeric Psychology,” University of Leeds Professor of Classics E. L. Harrison explains: “A common source of misunderstanding in Homeric interpretation is the assumption that Homeric language and modern languages are parallel, and that, to understand Homer, all we have to do is match two corresponding sets of terms” (63). One must remember that for Homeric man, terms such as *brain* and *tongue* did not necessarily carry the same meanings as they do in modernity.

5 Rivkah Scharf Kluger gives an exceptionally good explanation of the Babylonian conception of the underworld in her book *The Archetypal Significance of Gilgamesh*, pages 152-54.

6 Gosesim: plural of Goses, a person in whom one hears heavy breathing and spit in the throat . . . a death rattle.

7 Mitzvah: the fulfillment of a commandment.

8 “The Pew Research Center is a nonpartisan “fact tank” that provides information on the issues, attitudes and trends shaping America and the world. It does so by conducting public opinion polling and social science research; by analyzing news coverage; and by holding forums and briefings. It does not take positions on policy issues.” (http://pewresearch.org/about/)

9 Hodology: The study of anatomic connectional pathways.

10 See chapter 4 for a full explication of the physiologic changes which accompany learning as well as those which occur when one experiences anger.

11According to the Center for Immigration Studies, it was the Hart-Celler Immigration Bill, signed into law by then sitting President Lyndon Johnson that “phased out the national origin quota system instituted in 1921[. . .] and dramatically increased the flow of immigrants from Asia and Latin America into the United States” (“Three Decades”).

12T’ai chi: “A Chinese martial art and form of stylized, meditative exercise, characterized by methodically slow circular and stretching movements and positions of bodily balance” (Dictionary.com)

13 Neural refers to anything related to nerve cells. Humoral refers to elements of the blood or other bodily fluids.

14 Psyche: the human spirit or soul.

15 EEG: Electroencephalogram: a method of measuring electrical activity occurring in the brain.

16 Autonomic Nervous System: parts of the nervous system that are not under conscious control.

17 Cortical: referring to the region of the brain called the cerebral cortex.

18AUM: The syllable believed in the religions of India to mystically embody the essence of the entire universe ("Om", Encyclopedia Brittanica 2010).

19 Noradrenaline: also known as norepinephrine, is a chemical which can act as a neurotransmitter or a hormone.

20 Serotonin: a neurotransmitter known to be associated with a feeling of well-being.

21PET scans: a type of nuclear imaging allowing changes in chemical activity in an area to be studied and quantified.

22 fMRI: this type of scan uses powerful magnetic fields to measure changes in blood flow to the tissue being studied.

23 Synapse is the junction between one neuron and another.

24 Walsh was the first director of the Palliative Care Program established in 1987 at the Cleveland Clinic. In addition, he was the recipient of the 2009 Palliative Medicine Leadership Award given by the Annual Assembly of the American Academy of Hospice and Palliative Medicine and the Hospice and Palliative Nurses Association.

25 Amygdala: region of the brain understood to be central to the processing of emotions. See fig 6.1.

26 Orbitofrontal cortex: brain area right behind the eyes. See fig. 6.1.

27 Cingulate: region of the brain on the medial surface of the cerebral cortex. See fig. 6.1.

28 Endogenous: Internally created, created by the body.

29 CNS: Central Nervous System.

30 According to the Kyoto protocol of Basic Pain Terminology, "nociception" is defined as a physiological term used to describe the neural processes of encoding and processing noxious stimuli (Loeser and Treede 473).

31 Dorsal Horn: a region of the spinal cord.

32 Functional Magnetic Resonance Imaging (fMRI): a functional imaging technique which measures changes in blood flow and metabolism within the brain (Bear et al. 176).

33 Dorsal anterior cingulate: the forward and upper region of the cingulate.

34 Narrow glass or plastic tubes used to collect small amounts of blood.

35 rACC: rostral anterior cingulate cortex, a region of the cingulate that is involved in

pain perception and regulation.

36 More commonly known as a spinal tap, an invasive procedure in which a needle is inserted into the base of the spine in order to sample the cerebral spinal fluid.

37 In the medical lexicon, this word is used to express an extreme and sharp level of pain.

38 Children's Oncology Group, an international cooperative research organization devoted to the development of new treatments and cures of the cancers of infants, children, and adolescents and young adults. COG membership includes more than 5000 pediatric cancer specialists, located at 232 member institutions around the world. (Johnston et. al. 4646)

39 Iatrogenic: symptoms or illness produced in a patient as the result of a clinician's actions. ("Iatrogenic")

40 National Institutes of Mental Health defines Post-Traumatic Stress Disorder as an anxiety disorder that can develop after exposure to a terrifying event or ordeal in which grave physical harm occurred or was threatened ("Post-Traumatic Stress Disorder ").

41 Autonomic refers to the autonomic nervous system, a part of the nervous system that controls involuntary functions in the body. Examples of the functions under autonomic control include the beating of the heart, developing goose bumps from fear or cold, and shivering in response to feeling cold.

42 Venipuncture: the act of drawing blood from the vein of a patient.

43 Hippocampus: distinct region of the limbic system (See fig. 6.2).

44 The Academy of Psychosomatic Medicine defines Consultation-Liaison Psychiatry as: "The subspecialty of psychiatry concerned with treating medically and surgically ill patients" (Bronheim et al., 1998).

45 Cytotoxic: chemotherapeutic agents which act by causing death of certain cells.

46 Intrathecally: injected directly into the cerebrospinal fluid, the fluid that bathes the central nervous system.

47 Immune suppression: a compromised state in one's immune system that causes one to become more susceptible to infection.

48 Right ventral prefrontal cortex: a region of the prefrontal cortex described as being on the right side, and on the underbelly of the prefrontal cortex.

49 Platelet: An element in the blood that assists in blood clotting.