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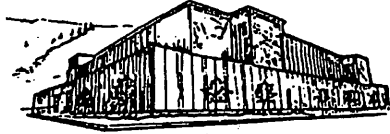
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THE LAYING ON OF LANGUAGE:  
REPRESENTATIONS OF THE BODY IN HEALTHCARE DISCOURSE

by

Jennifer E. Moffat

B.U.S. University of Utah

presented in partial fulfillment of the requirements


for the degree of

Master of Arts

The University of Montana

December, 2004

Approved by:

  
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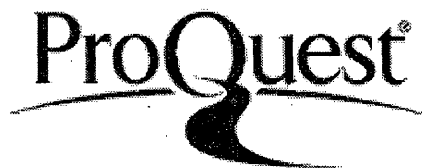


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The Laying on of Language: Representations of the Body in Healthcare Discourse

Chairperson: Sara E. Hayden SH

There is a growing interest in the convergence of conventional allopathic medicine with Complementary and Alternative Medicine (CAM) in the U. S. This rhetorical analysis of professional medical journals offers an investigation of how these two paradigms of medicine view the body through different rhetorical lenses, and how the subordinate discourse of CAM is affected by the dominant ways of knowing that exist in allopathic discourse. Two journals, The New England Journal of Medicine (NEJM) and Alternative Therapies in Health and Medicine (ATHM), were reviewed in terms of how they portray the body metaphorically.

The metaphors used in the journals illustrate two distinctly different ways of knowing held by allopathic and CAM practitioners. The metaphors in ATHM include the body as whole, self-healing, complex, and sacred. Through these metaphors, a unique CAM regard for the body as a whole being that is complex and contextualized by psychological and spiritual aspects of patients' lives emerges. Alternatively, the metaphors in the NEJM tend to present the body as a fragmented, generalized entity whose physicality is isolated from other components of human life, and which is subordinated to medical institutions and practices.

In comparing the use of metaphors in the two journals, I found a tendency for the use of allopathic metaphors in ATHM in ways that reveal the potential for CAM ways of knowing to be subverted. As the dominant ways of knowing represented in allopathic discourse are adopted in CAM discourse, the ways of knowing the body as whole, complex, and contextualized, which contradict the allopathic ways of knowing as fragmented, generalized, and isolated, may be subverted. This possibility points to a need for CAM practitioners and authors to maintain CAM ways of regarding the body as they strive to be integrated and appreciated by allopathic institutions and practitioners.

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## **The Laying on of Language: Representations of the Body in Healthcare Discourse**

Healthcare in the U. S. is undergoing an important transformation. This transformation involves the convergence of two primary forms of healthcare – conventional, or allopathic, medicine, and Complementary and Alternative Medicine (CAM). This convergence has begun to occur primarily through the choices of individual patients and practitioners to pursue alternative medical care (Wilson & Klein, 2002; Wootton & Sparber, 2001), and has been strongly influenced by practitioners who choose to become familiar with and even to advocate the use of CAM therapies. The convergence of allopathic medicine and CAM in the U. S. offers an exciting array of healing possibilities for practitioners and patients alike (Winslow & Shapiro, 2002). It also warrants some caution as practitioners and patients learn to combine different healing methods. As a result of both the acceptance and the caution involved in this convergence, there is a growing professional dialogue emerging in medical institutions as CAM continues to become an important element of healthcare in the U. S.

The convergence of allopathic medical discourse and practices with those of CAM is especially significant in terms of the ways that these two medical paradigms affect the healing processes of patients. Despite the different approaches of different healers, it is not uncommon for a patient to see a holistic therapist, such as a naturopath, in conjunction with the care he or she receives from his or her conventional medical physician. My own interest in this project arises from experiences with this crossover as a patient as a practitioner (see Appendix A). Unfortunately, it is also not uncommon for the two practitioners to be unaware that they are treating the same patient (Eisenberg et al., 1993; Harpur, 1994). According to a 1993 study, published in The New England



Journal of Medicine, seven out of ten people who visited an alternative or complementary healer did not tell their allopathic physician, and that an estimated number of over twenty million people in the U.S. were using CAM therapies in conjunction with allopathic medicine without telling their physicians, and often not telling their CAM practitioner (Eisenberg, et al., 1993). As natural therapies become more popular, this number is increasing (Eisenberg, et al., 2001; Kessler, et al., 2001), pointing to the importance of understanding the ways that the body is regarded and treated differently by practitioners in the two paradigms of healing.

The languages used in medicine are notoriously complex and difficult to understand. Medical terminology is said to constitute a language itself, one for which there are no native speakers. Consequently there are entire textbooks and courses dedicated to helping medical students decipher and integrate this system of language into their minds (Chabner, 2001). Additionally, the National Library of Medicine has created a Unified Medical Language System in order to provide a context in which speakers of this language might find commonality and consistency. The complex nature of medical language has played a part in establishing cultural authority for medical practitioners and institutions of medicine (Enzmann, 1997; Starr, 1982), meaning that the rhetoric used in medicine exerts a certain degree of power over those subject to it, as well as within the culture at large. Despite the gap between allopathic, or conventional, medicine and CAM, the two are merging more and more within the lives of people in the U.S., and, therefore, in discourse both within and regarding medical practice. The development of conventional medical language can be viewed metaphorically as a river of discourse that has become more powerful as it runs its course collecting water from adjoining streams,

such as new developments in science and medicine that are incorporated into the growing river of knowledge that is medical discourse. The discourses of different alternative medical groups can be seen as smaller streams that run parallel to the larger river of conventional medical discourse. As alternative healing grows in popularity, these smaller streams of discourse are growing in their power to define the body for practitioners and patients alike.

As CAM therapies are being more widely used, they are increasingly becoming subject to the kinds of rigorous scientific and empirical criticism applied to allopathic practice. Despite resistance among some practitioners and patients, the two rivers of discourse are converging, creating the possibility that each stream will be changed in various ways by the others. This analysis reveals that, when CAM therapies are presented for an allopathic audience, the body is framed in terms that are similar to those used in allopathic discourse. Conversely, there does not seem to be a similar adoption of CAM terminology in allopathic references to the body. This incongruity points to a one-way effect in that the dominance of allopathic discourse is asserted in the ways that the subordinate discourse of CAM shifts in order to appeal to allopathic readers, while allopathic discourse does not shift in accordance to CAM ways of knowing.

While there is no way to identify a pure form of either CAM discourse or allopathic discourse, the two medical paradigms of CAM and allopathic medicine display two distinctive ways of knowing the body through the metaphors presented in each of the two medical journals. By looking at metaphorical references to the body in the two journals, I found evidence which points to specific differences between the two forms of discourse that may be seen as inherent to each. I also found similarities that seem to

point to a tendency of CAM discourse to utilize or adopt traditionally allopathic points of view and rhetorical frameworks. Because the boundaries between the two types of discourse are both vague and dynamic, the argument that one is affected by the other will always hold the potential to be attributed to similarities that were already inherent to each discourse. After looking deeply into the metaphorical frameworks in these journals, however, it seems possible to argue that convergence of the two discourses is indeed creating a change in the subordinate discourse of CAM.

### **Categories for Analysis**

The word, healthcare, evokes many different pictures in people's minds. Some people might imagine a nurse taking a child's temperature, while others might envision a busy emergency room or a physician wearing a white lab coat sitting at the bedside. The various specific images reveal that the collective vision of healthcare in the U. S. involves allopathic medicine almost exclusively. This is changing, however, as more natural healing techniques are being used by patients (Eisenberg et al., 1993). The collective vision of the locations where healing takes place, as well as the operation of healing methods, has expanded in the last twenty years to include the work of herbalists, physical therapists, homeopaths, massage therapists, chiropractors, and many others. As I have mentioned, it is not uncommon for a patient to see two or more different kinds of practitioners for the same ailment, meaning that the work of practitioners overlaps upon the landscape of the body of the patient. By far, however, the most common types of healthcare offered in the U. S. fall under the category of allopathic medicine.

Some terminology that defines medical practice and practitioners is in the midst of an evolution as different kinds of therapies and approaches to healing are intermingling in practice. Here, I briefly outline some of the terms that will be used throughout this thesis, and I place these terms in the context of their current evolutions. The first term describes one particular kind of medical practice that forms the basis of this analysis -- allopathy. Allopathy, comes from the Greek "allos" meaning "other" treatment of disease. It is a reference taken from homeopathic medicine, which is based on using remedies that produce a similar response in the body to the disease response. Allopathic medicine, in contrast to homeopathy, uses remedies that produce different from, or "other than," the body's natural response to disease. Allopathy, although truly meaning "systems of healing other than homeopathy," has come to be synonymous with "establishment medicine" (Gerber, 1988), or conventional medicine, which includes use of such therapies as pharmaceutical drugs and surgery. The second term, naturopathy, is used to describe medical practice that incorporates more holistic therapies, many of which are included in the category of CAM. I elaborate on the differences between allopathy and naturopathy in a later discussion of categories for analysis.

The second set of terms I discuss involves the ways other kinds of practice are viewed within medical establishments. Because allopathic medicine has been the most widely accepted and well-known form of medical practice in the U. S., it is often referred to as "conventional" medicine, and other forms of medical practice have been referred to as "alternative" or "complementary" to this convention. All three of these terms are problematic in that they privilege allopathic medicine, first by holding it in the position of accepted convention, and, second, by referring to other therapies in reference to that

convention, placing them outside what is implied to be the norm. In order to avoid the first kind of privilege, I will use the terms, "allopathy" and "allopathic practice" rather than "conventional." The terms "alternative" and "complementary" warrant further discussion. "Alternative" is seen as especially troublesome because it suggests that non-allopathic medicine is from the underground, radical, or against the establishment. This term is often understood to mean "unscientific" or "invalid" (Orlans, 2001). Alternative healing methods are commonly viewed by the allopathic medical establishment as potential quackery. Within the culture of allopathic medicine, the term alternative often coincides with the term, unconventional, to describe methods and therapies that have not been scientifically validated and whose effectiveness and even safety are questionable (Marshall, 1994). In order to differentiate between those questionable therapies and the ever-growing number of validated and accepted therapies, the term "complementary" is being adopted more and more in allopathic fields to describe non-allopathic modalities of healing. While this is a step toward accepting these modalities within allopathic discourse, it continues to define non-allopathic practice by an assumed allopathic standard -- that is to say, it suggests that non-allopathic practice exists to complement allopathy rather than as modalities that are legitimate on their own. Some other terms used to encompass the many forms of non-allopathic practice include "bodymind," a term that emphasizes the importance in CAM of the connections between the body and mind (Darwin, 1999; Epstein, 2000), and "natural" medicine. These terms represent some but not all non-allopathic practices. As an appropriate term has not yet emerged in medical discourse, I use the term Complementary and Alternative Medicine (CAM) to describe non-allopathic practices in general. This term, though problematic, offers the least

amount of confusion as it was recently adopted by the National Institute of Health (NIH) and is the most commonly used among researchers in as well as critics of the academy of medical practice.

Due to increasing interest among patients and even some individual allopathic practitioners in using CAM therapies, the field of allopathic medicine has begun to acknowledge some CAM practices, including naturopathic and homeopathic medicines, Chinese medicine and acupuncture, as well as massage therapy, chiropractic, and other bodywork. Although, as previously mentioned, these kinds of therapies are commonly referred to in allopathic discourse as CAM, they are also known in other terms. Some allopathic physicians are beginning to work with bodymind medicine, using the term "biopsychosocial" to define this perspective within their fields (McWhinney, 1989). The NIH, which typically investigates and supports allopathic medicine as the only form of valid or substantive health care in the U. S., created an Office of Alternative Medicine in 1992. Similarly, Harvard Medical School developed a Division for Complementary and Alternative Medicine, initiating the creation of similar programs in over seventy medical schools across the country (Orlans, 2001). This rise in allopathic interest has spurred an ongoing professional discussion regarding what makes CAM therapies valid as well as what defines CAM therapies.

It is difficult to group CAM therapies together. Some CAM practices, such as meditation and visualization for healing, can be practiced by a patient at an amateur level. Others, such as naturopathy and Traditional Chinese Medicine (TCM), require levels of education and training similar to those of allopathic physicians. As complementary therapies become more popular among patients and practitioners of allopathic medicine,

there has been a call by some practitioners to avoid using them until they have been proven effective and safe through rigorous, scientific experiments of efficacy. Many allopathic researchers point out that much of what we know of holistic therapies is based on "anecdotal accounts or results of small-scale, nonrandomized, or uncontrolled studies" (Swackhamer, 1995). However, as proponents of the use of complementary therapies point out, only 15% of accepted allopathic practices are supported by such solid scientific evidence (Swackhamer, 1995, Ullman, 1993).

In order to make sense of the vast variety in healing approaches, I chose two specific groups of healers upon which to focus this analysis. These are naturopathic physicians and allopathic physicians. These two groups parallel one another in that both require rigorous medical training encompassing many modalities and offering specialties within which individual practitioners work. Naturopathic physicians represent a holistic approach to healing the body. They engage the body and mind, and in some instances, the spirit, in order to facilitate healing. Naturopaths also approach healing as a science, though not as exclusively as allopathic practitioners. Allopathic physicians tend to specialize in certain body areas or bodily functions in order to provide a more focused level of treatment.

These two groups of healers were selected from a vast array of approaches to healing. I have chosen them because allopaths and naturopaths often function as primary caregivers for individual patients. Other kinds of practitioners such as nurses, physical therapists, chiropractors, and acupuncturists, are more likely to see a patient for a specific ailment over a more limited period of time. Naturopathic and allopathic practitioners are more likely to see a patient through different kinds of ailments over an extended period of

time, although this is not always the case. Additionally, both allopathic and naturopathic physicians experience a similar level of rigorous training including education, certification, and continuing education requirements.

## NATUROPATHIC PHYSICIANS

I chose to explore the language of naturopathic physicians because it parallels allopathic medical practice, and because it incorporates various forms of CAM therapies, offering a holistic approach to healing. Naturopathic practice is known by several other names including bodymind medicine and natural healing. Naturopathy includes healing techniques that view the body as deeply connected with, if not inseparable from, the spirit or soul. This whole-system view of the body requires that naturopathic physicians incorporate many dynamics when approaching specific ailments of the body, truly offering a holistic approach to restore normal physiology to the body. Holistic health emphasizes the concepts of wholeness, balance, and energy (Swackhamer, 1995). With this multiple dynamic approach, naturopaths often find themselves operating within the body's flux of complexity and interconnectedness as they work to facilitate healing in the body (Kaptchuk, 1983).

Naturopathic medicine, as a holistic practice, involves several different modalities of healing. Naturopathic physicians are trained in five specific branches of medicine -- nutrition, homeopathy, botanical or herbal medicine, some Traditional Chinese Medicine (TCM), and physical medicine, which includes massage and other bodywork. This is true, with some degree of variation, for naturopathic medicine both within and outside the U. S. The five branches of naturopathy are combined with a scientific understanding of



the body similar to that employed by allopathic medicine in order to address patient ailments holistically. The holistic and diverse approach of naturopathic medicine makes it a useful practice within which to generalize CAM therapies.

Naturopathic physicians, like allopathic physicians, are trained, licensed, and skilled in some standard Western diagnostic methods such as blood analysis, physical examinations, and x-rays. They use these diagnostic methods to design a healing plan that includes the range of natural therapies listed above as well as some forms of allopathic practice such as minor surgery and pharmaceutical drugs if needed. Although these practitioners are capable of using some allopathic modalities, the vast majority of treatment by naturopathic practitioners relies on CAM medicines or therapies. A naturopathic physician will refer a patient to an allopath when necessary, and can provide treatment that is supportive or complementary to other treatments the patient is already receiving. For example, a naturopath might provide natural remedies to ease discomfort caused by an allopathic method such as chemotherapy.

The concept that is perhaps most central to understanding the holistic paradigm is the mindbody or bodymind (Darwin, 1999; Epstein, 2000). Where the practice of allopathic medicine operates from different points of separation on the map of the body -- dermatology lies on the skin, osteopathy resides deep in the bones -- the practice of holistic medicine focuses on connection between and among different areas and systems of the body. The concept of the bodymind demands that practitioners consider the effects of each part of the body on other physical processes as well as on thought, emotional state, and spiritual development. It is this constant awareness of connection that drives a naturopathic physician to ask about and explore the emotional, psychological, and

spiritual lives of patients in order to more clearly understand their physical conditions. A typical visit to a naturopathic practitioner reflects the process of understanding connections with diet, job satisfaction, emotional history, or other factors in order to help the body heal.

Holistic approaches often take more time to orchestrate and administer than other healing methods. A naturopathic physician will often spend over an hour in an initial interview gathering information about the patient's diet, activities, psycho-emotional stresses, and health history as well as the specific symptoms of the primary ailment. In order to accomplish "the goal of holistic therapies ... to free the patient's physical, emotional, and spiritual energy to make it available for self-healing," each of these aspects of the person must be understood to some extent by the physician (Swackhamer, 1995). This process of self-healing often requires time for the body to re-establish healthful functioning. For this reason, naturopathy is often not considered adequate to treat emergency trauma situations. Naturopathic practitioners will often agree that the technology of allopathic medicine has allowed physicians to diagnose trauma in patients more rapidly and efficiently. This efficiency, however, does not replace the importance of "learning to support the body's innate ability to heal itself" (Sullivan, 1998).

Naturopathic treatments are based on physical, scientifically-proven methods combined with a constant understanding of connections with emotional, psychological, and auric or energetic functioning of the patient. The primary goal of naturopathy is to provide wellness by supporting the body's natural ability to heal and function.

## ALLOPATHIC PHYSICIANS

Allopathic physicians include those who practice what is often referred to as Western medicine, biomedicine, or conventional medicine. It includes the modalities of healthcare that are taught extensively at U. S. medical schools and are generally provided in hospitals and clinics (Eisenberg et al., 1993). Allopathic care is based on a scientific and often mechanistic understanding of the body. It is also very specific. Most allopathic physicians specialize in a particular part of the body, such as a cardiologist who treats the heart, or in a particular disease or condition of the body, such as an oncologist who treats cancer. Allopathic practitioners also include nurses, physical therapists, emergency medical technicians, and even medical researchers. Although allopathic medicine, like naturopathic medicine, is provided by many kinds of practitioners, it is different from holistic medicine in that each of these practitioners uses the same fundamental views of the body in their practice, primarily based on scientific knowledge and a focus on the mechanical functioning of the body. Allopathic medicine also uses more technological means to see and understand the body, creating a somewhat segmented view of the body. The use of technology allows allopathic practitioners to offer specific, focused care for physical ailments.

Allopathic medicine offers relatively rapid care, often with near-immediate results. A headache can be relieved with aspirin or ibuprofen within minutes, and emergency surgery can reverse a fatal condition within a matter of hours. Allopathic medicine is celebrated for being effective for treating trauma and for containing infectious diseases, but some critics maintain that it has not gone far enough in defining and teaching the principles of health, nor has it effectively treated the body as a whole

(Dalen, 1996). As a whole, the field of allopathic medicine is the most widely-used and widely-accepted approach to healing in the U. S. and is therefore most widely available. Allopathic medicine is covered by all major health insurance companies, as opposed to naturopathic medicine and other CAM practices which are rarely covered. As more patients become interested in alternatives to allopathic treatments, however, this is changing.

A typical visit to an allopathic physician takes far less time than a visit to a holistic practitioner. The current standard for an allopathic visit with a patient, set by Health Maintenance Organizations, is ten to twelve minutes (du Pre, 2002). The primary complaint is addressed specifically without much investigation into other aspects of the client's health. For example, a client who suffers from arthritis in the wrists will most likely visit a specialist who will examine the wrist joints and offer remedies, including pharmaceuticals or exercises, which are targeted specifically at the affected joints. This kind of specific care offers the client rapid relief as compared to what might take weeks or even months with holistic treatment. However, the specialization of allopathic medicine has drawbacks that are especially apparent in the treatment of chronic illnesses such as arthritis. Pharmaceutical drugs often cause side effects that compromise overall health. The efficient relief of symptoms can also mask underlying imbalances in the body that resurface later. For instance, arthritis in the wrist may be caused by a systemic imbalance that will eventually result in arthritis in other joints. If the client's wrist pain is relieved, she may be less inclined to address overall health until further arthritis develops and causes even more pain.

## **Texts for Analysis**

Most healthcare practitioners are required to continually update their skills and knowledge by taking classes and updating certification throughout their careers. Most practitioners, both CAM and allopathic, regularly read journals and magazines in order to learn about new developments in their fields and to remain fluent in the language of their practice. Often, journals and magazines published by professional organizations provide a forum for dialogue to occur among practitioners and for researchers to present new findings. Because they are published often, these journals and magazines offer a view into the discourse of each group of practitioners as they use language and information regularly in their practice. I have analyzed two publications -- Alternative Therapies in Health and Medicine, which reviews developments in CAM therapies for both allopathic and naturopathic practitioners, and the New England Journal of Medicine, which is based solely in allopathic practice and whose audience consists almost solely of allopathic practitioners. Each journal is published by a professional organization in its field, is peer-reviewed, and has a wide and regular readership. In this section, I first explain the relevance of the two journals to their professional fields and to this thesis. Second, I describe the method by which I selected the specific issues of the journals to analyze. Finally, I discuss the significance of these journals according to the objectives of this thesis.

There are many popular journals that reflect CAM practices that range from hobby or general interest publications to professionally written journals of science. Because CAM, including naturopathy, involves a broad spectrum of healing practices, I chose to analyze a journal that addresses various CAM therapies, including the five

branches of naturopathy at a highly professional level. This journal is Alternative Therapies in Health and Medicine (ATHM). It includes peer-reviewed, evidence-based articles on new discoveries in holistic healing as well as in energy healing. It was launched in 1995 as a scientific forum in which CAM therapies can be reviewed and discussed among healthcare professionals, in this case, both CAM and allopathic practitioners. It has been indexed in the National Library of Medicine since 1996. The focus of the journal is on the integration of holistic and complementary medicine with allopathic medicine. Because it is written for allopathic as well as CAM healers, ATHM reflects the scientific focus of naturopathy and allopathy while exploring and assessing nature-based and holistic medicine.

The New England Journal of Medicine (NEJM) is the most highly-subscribed professional publication among allopathic physicians. It is published weekly by the Massachusetts Medical Society. Like ATHM, its articles focus on scientific research but, unlike ATHM, it focuses almost completely on allopathic medicine. Because allopathic medicine has a broad focus, the NEJM offers a way in which research and issues can be addressed in several formats, including an "Original Articles" section, an "Images in Clinical Medicine" section (see Appendix B for images included in the journal), an editorial section, and a section entitled "Correspondence," in which readers can respond to, as well as add information to, articles in previous journals. Not every issue of the journal contains every format, though most are represented in each of the weekly journals. (An overview of the formats used, as well as the topics addressed, in each journal is included in Appendix C.)

This rhetorical analysis is based on metaphors for the body that are used in the journals. In order to get a complete perspective on the metaphorical themes represented in each journal, I began an overview of the journals published within the year 2002. This year was the most recently available at the onset of this study, reflecting my desire to situate this analysis in the current evolution of the two discourses. Because each journal has a different publishing rate (six per year for ATHM and fifty-two per year for the NEJM), I chose to review all six issues of ATHM and selected twenty-four issues of the NEJM, the first and third of every month, from the year 2002. The first and third issues of the NEJM provide a representative group of journals in that every article format is used relatively equally within this group. I reviewed these issues of the journals in order to assess the general metaphorical themes that appeared in medical discourse.

Once the general metaphorical themes were determined, I returned to the group of selected journals and selected one issue of the NEJM and one issue of ATHM to be reviewed in depth. In order to select one primary text issue of the NEJM, I selected the issue that offers the widest range of formats within the month of January, 2002, a time frame within the publishing range of the selected issue of ATHM. The primary text issue of the NEJM is Volume 346, Number 3, which was published January 17, 2002. The article sections in ATHM are relatively consistent in each issue of the journal, so selection of a primary text was based on the issue that represented the widest variety of bodily topics. The primary text issue of ATHM is Volume 8, Number 2, which was published in March/April, 2002. Throughout this thesis, I will refer to the primary texts for most examples of metaphors in medical language, and will specifically reference use of secondary issues of the journals.

Because the body is discussed differently according to the different formats of each article in the journals as well as the specific topic of each article, I focused my analysis on the articles that are most influential to medical practice and most relevant to this thesis. The article formats fall into three categories. The three types of articles in each journal are roughly equivalent to each other; they include a scientific research format, a case study format, and an editorial format. In both journals, the scientific research format forms the central feature and occupies the most space in each issue. While the scientific focus is to be expected in the NEJM, the similar focus in ATHM is likely due to the effort in this CAM journal to appeal to the scientific viewpoints held by its allopathic audience. The centrality of scientific research speaks to its importance as a primary way of knowing for both forms of discourse, and is therefore important to the study of how the body is considered through metaphor and how metaphor reveals different ways of knowing in medical discourses.

In addition to the variety of article formats existent in the journals, each issue covers a variety of topics, each of which presents the body in different ways. The primary issue of the NEJM contains articles covering a variety of topics ranging from research for a new chemotherapy drug to editorials on predicting premature delivery. Despite the broad range of topics in each issue of the NEJM, however, every issue has a theme upon which three of its twelve or so articles are based. This loose theme format presents a small challenge to the congruity between the two journals in that ATHM does not offer such a theme for each issue, and, depending on the theme of any given article, there may be different elements of language present for analysis. With this in mind, I reviewed twenty-four issues of the NEJM in order to see outside the particular



metaphorical patterns that might be inherent to certain themes. As was expected, the number and types of metaphorical references to the body were different according to article format, as well as according to article content in each journal. I addressed these inconsistencies by reviewing a large number of issues to locate the general metaphorical themes before selecting one issue of each journal to review in depth. I found that with this overall view, the journals are consistent in the types as well as the concentration of metaphorical frameworks through which they present the body.

By looking at journals published in 2002, I have chosen to situate this analysis in the current climate of healthcare in the U. S., in which an increasing number of allopathic practitioners and patients are exploring natural healing methods (Eisenberg et al., 1993; Winslow & Shapiro, 2002). This growing interest has led to increasing concerns among some allopathic physicians and institutions that CAM therapies will be embraced without rigorous scientific testing. Paradoxically, the healthcare situation at the beginning of the twenty-first century is marked by a growing public concern about the safety and efficacy of many of the practices of allopathic medicine. Contemporary U. S. culture has embraced technology, including technological medicine, for years and now finds itself questioning some of the uses of technology. For instance, recent reports in medical news have raised issues such as whether mammograms may actually contribute to harmful radiation that causes breast cancer, the very condition they seek to prevent ("Of Mammograms," 2002).

It is this very crossover of healing practices and ensuing debates about legitimacy that warrant my exploration into the different ways practitioners describe and discipline, a term I will elaborate on further, the body with language. I have chosen to analyze

journals published in 2002 in order to view discourse occurring among practitioners during the current convergence of different healing paradigms. The study of professional journals provides a forum for addressing the first objective, which is to investigate the ways that the body is framed in professional medical discourse.

The second objective, which is to investigate the ways the CAM discourse is or is not affected by the dominant discourse of allopathic medicine, is fulfilled through the study of these texts in that the two texts are congruent in type of audience, level of professionalism, and timing of publication, as well as in content. Each publication refers to healing modalities beyond the original scope of their constituency. For instance, the NEJM occasionally publishes articles on natural healing research, and ATHM often frames its research in scientific terms in order to appeal to allopathic readers. Because this analysis includes a CAM journal that is specifically written for allopathic audiences, it is impossible to discern how other CAM texts may be affected by allopathic discourse. For the purposes of this study, the crossover between the two ways of knowing the body occurs in ways that enlighten the dynamic between the two discourses, but other studies will need to be conducted in order to reveal whether this crossover occurs differently in CAM texts that are not written for an allopathic audience.

## **Literature Review**

In this section, I discuss the two objectives of this thesis as they have appeared or been addressed in other research. For the first objective, which is to investigate the ways the body is framed in professional medical discourse, I review the field of health communication and the ways the language of allopathic medicine has been studied by

researchers in other fields. I then review the literature describing rhetorical analysis of CAM in both health communication and other fields of research.

The first objective of this thesis is to investigate the ways that the body is framed in professional medical discourse. This is an objective that has been addressed to some extent in communication research, though the focus of health communication has not been on rhetorical analysis. This research has also focused almost exclusively on allopathic medicine. The field of health communication has blossomed in the last decade (Sharf, 1999), particularly with the publication of the journal, Health Communication, beginning in 1999. Much of the research in the field of health communication has focused on interpersonal interactions between practitioners and patients (Ellingson & Buzzanell, 1999; Ledlow, O'Hair, & Moore, 2003), and the strategies and effects of public health discourse (Parrott, 2004), particularly in the mass media (Clarke, 1999; DeSantis & Morgan, 2003). There has been a marked shortage of rhetorical analysis of professional medical discourse within the field of communication studies, though this is changing as health communication research becomes more widely-known and more popular among scholars. Scholars are recognizing that "if health communicators are to have a positive influence on peoples' health, then we need to understand how health messages across all communication levels work together interdependently to influence individual health" (Witte, et al, 1996). This is also described in the following commentary on the importance of communication in health and medicine:

Communication in health and illness constitutes one of the most vital of human experiences. Few other human phenomena are more elemental than health and illness: few connect us more viscerally with our aspirations, or confront us more

palpably with our limitations. Moreover, given the dynamics of these elemental experiences, and especially given that they are constituted in the communicative interweaving of body, mind and society, health communication is among the most complex, challenging, and potentially rewarding areas of scholarly inquiry.

(Brashers & Babrow, 1996)

The focus on both interpersonal and public health education reveals provides a secondary need for a more research regarding professional medical discourse. There is very little research provided regarding professional and institutional discourse in the field of medicine. One important work that investigates health communication at the institutional level is Foucault's The Birth of the Clinic (1963/1973), which provides a theoretical framework for this thesis, and is elaborated in the next section regarding the theoretical framework of discipline.

Aside from Foucault's extensive commentary on the nature of medical institutions and medical discourse, discourse that occurs within medical professional institutions has not been a focus of contemporary health communication research, although it has the potential to reveal value structures and beliefs that shape healing practices and outcomes. Two communication scholars in particular have addressed rhetorical constructions of the body in healthcare discourse, though not necessarily in professional healthcare discourse. Stormer (2002), in discussions of abortion and the rhetoric of "life," argues that "it was through the early practices of medical investigation, physicians' ways of knowing, that abortion was articulated with life such that to abort was deemed criminal" (p. 7). This argument draws on Foucault's concept of discipline in terms of the way the body is constructed through medical discourses and practices in particular regard to women's

bodies and reproductivity (Stormer, 1997, 2002). Hayden (2001) further assesses the function of discipline in regard to reproductivity and women's bodies in a study of sexual education texts, arguing that the politics of power are in essential component of how sexuality texts are formed and how they function in terms of constructing human bodies. This thesis extends some of the work presented by Stormer and Hayden by offering a Foucauldian analysis of professional healthcare discourse in terms of the general human body, rather than the bodies of women in regard to reproductive functions.

The objective to study the ways the body is portrayed in medical discourse has been addressed outside the field of communication studies. Some scholars outside the field of communication studies have explored metaphor in medicine. Sontag (1977, 1988) explored the ways that illness acquires metaphorical meanings that affect societal views of patients as well as illnesses. One specific metaphor for the body that has been noted in the research is that of the body as war. The use of weapon-based imagery is effective in helping others imagine what one may be feeling, but as the metaphor becomes common and the image is used often, it can exacerbate the intensity of the feeling and, as some suggest, even slow the healing process (Scarry, 1985). I elaborate and explore this metaphor in the chapter on allopathic metaphors in my analysis of the body as depicted through conflict.

Other research regarding professional medical discourse describes ways that medical institutions have insisted upon and been driven by the need to dominate and control the body. Cartwright (1995) claims that medical assessment by such institutions rely on a belief that the body is dark and mysterious, as well as transient and uncontrollable (Cartwright, 1995), and that these beliefs about the body lead to a

tendency to dominate and control the body through medical practices. In order to bring order or control to such a body, an effort to see it, to place its mysterious nature under the gaze of medicine, must be exerted. Foucault referred to the penetration of the medical gaze into the human body as "the technique of the corpse" (Foucault, 1963/1973, p. 141), a direct reference to early efforts of medical institutions to see the body by dissecting it in autopsy, a practice that "failed to render pathology fully visible but led the physician instead to traces of the disease mapped upon organs and surfaces" (Cartwright, 1995, p. 10). It is the failure of vision, Cartwright argued, that leads to "the image increasingly becom[ing] the site of a certain professional anxiety" (p. 23) for allopathic practitioners. The pressure to produce accurate images of the body, and then to respond effectively, places the reputations and professional successes of practitioners on the behaviors of the bodies of patients. In medicine, where the body is the focus of practice, discourse regarding the body relays the importance of exerting the gaze and eliciting responses in patients' bodies that have been defined as appropriate by medical institutions.

The second objective of this thesis is to investigate the ways that CAM discourse compares to allopathic discourse in framing the body. Health communication research also offers very little scholarship regarding CAM, and so does not inform this objective strongly. A rhetorical analysis of CAM texts by Montgomery (1993) offers a discussion of the ways that CAM discourse asserts ways of knowing that mimic allopathic discourse. Montgomery found, through a study of various CAM texts, that CAM discourse "tends to form a closed system erected upon a distinct range of central terms and images" (p. 71), but that this system of knowledge offers "no alternative imagery ... regarding the

phenomenon of disease" (p. 80). This thesis, by exploring the specific element of metaphorical representations of the body, reassesses this claim to some degree.

In addition to the work of Montgomery, there is little work done on the specific representations of the body in CAM discourse. There is some work in international health communication that makes mention of some CAM practices, including an entire issue of Health Communication in 1999 based on medicine in China. This issue of the journal provides a similar focus on interpersonal communication (Jin, 1999; Smith, Dixon, Lam, & Lam, 1999) and mass media messages regarding health (Kim, Smith, & Irwin, 1999). An overview of medicine in China offers a brief description of the intersection of Traditional Chinese Medicine (TCM) and Western allopathic medicine, but does not elaborate on TCM or present it as complementary care (Yueguo, 1999). Even in light of these kinds of brief descriptions of traditional medical practices internationally, there is a remarkable lack of research in the area of CAM in the field of health communication.

Examination of discourse within professional institutions of medicine has been largely ignored and represents a generous, untapped resource for understanding healthcare paradigms and behaviors, which in turn informs day to day communication between physicians and patients. This project offers a rhetorical analysis of healthcare communication as it appears textually in a consistent and well-used professional format, that of professional medical journals, in order to ascertain the ways the body is portrayed in medical discourse, and to investigate the ways CAM discourse portrays the body in comparison to allopathic medicine.

## **Theoretical Frameworks**

Healthcare ideology is woven into the fabric of language as it is used by practitioners in healthcare practices. Through the first objective, to investigate the ways the body is framed in discourse, I reveal some of the meanings and values of each group of practitioners, as they are woven into the texts, by examining two particular elements of discourse – Foucault's concept of discipline, and metaphorical references to the body in medical discourse. By following these threads, I explore the ideologies of the two different medical paradigms, including the ways the body is disciplined by language as it is used by medical professionals.

### **DISCIPLINE**

A concept that is central to rhetorical analysis of medicine is Michel Foucault's idea of discipline. Central to my analysis is the ability and tendency of powerful institutions, such as hospitals, to discipline the body through the use of language and material practices working together. Discipline, as a function of power, was described by Foucault as the ability of institutions to enforce certain behaviors by dividing, training, and normalizing the body both rhetorically and materially (Foucault, 1963/1973, 1975/1977). This use of the term, discipline, rests on the epistemic nature of discourse as well as on power differentials that exist among individuals as part of a system, in this case, the system of healthcare. Foucault argued that the language used by those in power in the system, in this case physicians, carries with it an extended ability to define and to discipline the body as a collective conception as well as in the actual physical body of individuals, both physicians and patients alike (Foucault, 1963/1973). Language and



material practices work together in medical situations ranging from brief examinations to long, complicated surgeries. In the case of a routine examination, the physician uses words as well as actions to divide, investigate, and treat the body.

Foucault, in The Birth of the Clinic offered a thorough initial assessment of discipline as it occurs in the field of allopathic medicine (1963/1973). In this book he described the body as being acculturated, mediated, and disciplined by the language used within institutions, particularly the institution of modern medicine (Bordo, 1992; Foucault 1963/1973). Within the development of his theory of discipline, Foucault began to use "the gaze" as a term by which to describe the combined ideologies and perceptions of an institution as they are practiced by its members in their encounters with people subject to that institution (Foucault, 1975/1977). For instance, when a patient who is receiving chemotherapy has a meeting with his or her physician, the patient is at some level aware the he or she is subject to the expertise and authority of the physician, and will therefore modify behavior accordingly. Words that are spoken by the physician hold more rhetorical weight because of the power differential within the context of the interaction. In a context outside this institution, for instance if the same patient were in a neighborhood book club with said physician, the authority held by the physician may be less relevant and the power of the gaze dissolved.

The influence of the medical gaze upon the body of the patient is affected by the specificity, general acceptance, and widely unquestioned authority of the language and practices of allopathic medicine. Foucault's analysis investigated allopathic medicine exclusively. As alternative therapies have become more popular, it is appropriate that we also examine the ways other fields of healthcare discipline the body through discourse

and practices. I found in this analysis that allopathic medicine tends to use metaphors that dominate, or discipline, the body more so than does CAM. While both forms of discourse define the body through the use of metaphors and, therefore, provide some degree of discipline, the discourse of allopathic medicine offers a stronger disciplinary force in two primary ways. First, allopathic discourse uses metaphorical references to the body more often and, therefore, abstracts the idea of the generalized body from the reality of any one actual body more thoroughly than does CAM discourse, and, second, the metaphors used in allopathic discourse help define a stronger power differential between medical institutions and the bodies of patients. This tendency of allopathic medicine to discipline the body seems to be adopted in the use of some allopathic metaphors by the CAM discourse in this analysis.

One important result of Foucault's idea of discipline is an interpretation of the body as a site where various discourses conflict (Punday, 2000). By examining the language of medicine as it is situated in contemporary healthcare discourse, I have found conflicting ideas about the body in CAM and allopathic fields of healthcare. These conflicting views of the body help differentiate the separate ways of knowing established by each paradigm of healing. Additionally, I have found congruent portrayals of the body in the two journals that seems to result from the effort by CAM to adopt allopathic ways of knowing and talking about the body. Some of Foucault's later work helps inform the different ways that CAM discourse constructs the body. Foucault established that, while discipline is inevitable, some discourses exert a stronger disciplinary force than others (Dreyfus & Rabinow, 1983). In fact, some discourses and practices offer what is called an "aesthetic of existence," which seems to help define the ways that CAM

discourse defines and interacts with the body. I found that the metaphors in the CAM text define the body in ways that uphold this subjective ability to respond by portraying the body as being active in the healing process. This differs strongly from the disciplinary force of the allopathic definitions of the body as a passive object that is reliant on medical expertise in order to be healed. True to Foucault's description of the discourses of existence, CAM discourse is one that has been "marginalized and trivialized, but which have [sic], nonetheless, helped shape our bodies and are [sic] still within our reach" (Dreyfus & Rabinow, 1983, p. 261). Indeed, the possibilities that arise from Foucauldian analysis help describe the ways in which CAM discourse seems to offer important alternative ways of knowing to the conventional, disciplinary force of allopathic medicine.

Thus only if one is prepared to study not only systems of thought and the human reality they constitute, but also those practices which persevere even though they seem to be trivial and even subversive, can one understand how a new ethical system emerges and focuses human reality in a new way. The move to replace central practices by those which are now marginal might thus provide the basis of a more satisfactory account of a nonreactive kind of resistance than Foucault has thus far been able to offer. (Dreyfus & Rabinow, 1983, p.263)

Healthcare practitioners operate within certain ideologies, or sets of discourses and images that constitute the most widespread and accepted knowledge and values in a particular field (During, 1999). Ideology also includes the logical conclusions drawn from this common knowledge. In healthcare fields, ideologies that center around health, the body, and disease help define the culture of the group and they guide actions within

the group. Shared ideologies within each group of practitioners facilitate communication by providing a common pool of knowledge and a common language by which practitioners can share information and work together. It is through these shared meanings and values that individuals find meaning in the world. Individual practitioners, like people in any group, can become so used to the dominant ideology of their field that they forget that the shared knowledge is in fact partial, political, and open to change. Ideology easily becomes naturalized, or made to seem eternal and universal, and is in part defined by this naturalization.

## METAPHOR

The discipline of rhetorical analysis has been developing for almost as long as written language itself. At this point in time, many methods of analysis are used by scholars to explore different texts and rhetorical situations. For this analysis, I have used the framework of metaphorical analysis in order to explore themes that are woven into medical texts.

The use of metaphor in the language of healing offers great potential for understanding some of the beliefs about the body that different practitioners hold. While these meanings and values are not necessarily hidden in the text, they are often unnoticed because these meanings and values are held within the structures of knowledge that we take for granted. Because the existing vocabulary for pain and other bodily sensations is limited, explicit metaphors (those that employ "as if") are often employed by patients and practitioners alike in order to convey important symptoms and experiences (Scarry, 1985; Selzer, 1998). For example, if a patient says her leg hurts, a practitioner will still need to

know the intensity and quality of the pain in order to diagnose and treat the ailment. If a patient says her leg feels as if a hammer is being pounded into her bone, the practitioner has more information about intensity and quality of the pain, as he or she might imagine what it would feel like to be hit by a hammer. Practitioners often use questions that lead a patient to offer metaphorical descriptions of their sensations, such as "Is it more like a hammer is hitting you, or like a nail?" This kind of question helps qualify the pain and direct the practitioner's diagnosis according to a degree of similarity the metaphor carries between the experience of the patient and the imagination of the listener. By likening one seemingly unrelated image to another, a metaphor connects and contains a great concentration of meaning.

In the literary tradition metaphor was initially established by Aristotle in the *Rhetoric* and *Poetics* to be the transference of a name from its original subject to another. The concept of metaphor has come to be understood as far more than simply a literary device, but as an intrinsic element of human cognition and communication (Johnson, 1981). Some scholars argue that all language is metaphorical because all language shifts meaning from the subject itself to its name. By creating words to describe reality, we see reality *as* something, *as* the words we have assigned to it, thereby eliciting a certain separation between the subject and our interpretations of it -- essentially manifesting metaphor with every word (Ivie, 1987; Osborn, 1967). This element of separation which is so fundamental to the operation of metaphor is even inherent to thought itself (Burke, 1945; Richards, 1936). Before we formulate language, we attribute meaning by comparing what we see in one context to an aspect similar to one we have encountered in an earlier context (Richards, 1936). Nietzsche described this separation between pure

experience and the eventual interpretation that is language when he stated: "A nerve-stimulus, first transformed into a percept! First metaphor! The percept again copied into a sound! Second metaphor! And each time he leaps completely out of one sphere right into the midst of an entirely different one" (1911, p. 178).

Metaphor is often not noticed or acknowledged as being inherent to all language and all cognition. It is invisible or hidden by nature of its ubiquitous existence. Just as we need light and shadow to see the outlines of an object that is at any level of distance from us, we need a certain element of distance and shadow from the concept of metaphor in order to see or conceive of it. As it exists in all language, it is often not seen. Metaphor becomes more visible as it is used figuratively and intentionally, such as 'the pain washes over me like a river.' This visible use of metaphor provides a more distinctive view of the transference of ideas created by metaphor. At the figurative level this transference can exist at two different levels; it can be explicit, as in 'pain is a river,' or it can be implicit, as in 'pain washes over me,' which implies the vehicle of the river without using the actual word. Often, more implicit metaphorical transference is used without intent to create analogy between the two ideas (Lakoff & Johnson, 1983), such as the phrase, "her body was invaded by germs," in which the process of infection is compared to a battle. I mention this difference between explicit and implicit metaphors because I found that metaphors in professional medical discourse most often appear as references that point to implicit metaphors, and are not always obvious on first reading. Through understanding the ways that metaphors can be implied in discourse, the medical metaphors in this analysis become more apparent. In this analysis I look beyond the

inherent metaphorical nature of all language, and instead focus on metaphors in medical language that are figurative, even though they are often implicit.

The metaphors we use emerge from and reveal our conceptual or cognitive frameworks (Lakoff, 1987). When a certain metaphor or category of metaphors is used universally by a group, in this case a group of healthcare practitioners, it reveals the meanings, beliefs, and even value judgments that are accepted by the group. Further, because the connections created by the use of those metaphors are considered to be common sense by members of the group, they are rarely questioned and they have the power to shape behavior in subtle ways. The language of medicine is essentially a language of the human body, and it is through this language that the body is mediated (Bordo, 1992). The metaphors used implicitly in medical language reveal assumptions and values written into the culture of medicine and the culture at large. For example, if one were to say that "immune cells guard against infection," one would be engaging a battle or imprisonment metaphor and revealing that this is inherent to our understanding of the functioning of our bodies.

Metaphorical language draws much of its power from the ideals and emotions woven into the fabric of social mythology; metaphors offer vivid imagery and a rich depth of understanding to language. For these reasons, metaphors are often used by healthcare practitioners and by patients to convey the complex, irrational experiences of the body. Metaphors provide tools with which to understand bodily experience as well as to define bodily experience, and so metaphors and their implied values provide a touchstone upon which I base my exploration of ways in which the body is framed in

professional medical discourse, as well as the ways allopathic medicine and CAM compare in their uses of such frameworks.

### **Preview of Chapters**

When we refer to the body as an object, as something other than ourselves, we separate our selves from our physicality, perhaps in order to get a better view. A function, some would say the primary function, of medicine is to establish a view of the body. By seeing it, we hope to understand it and to help it heal. The different ways that metaphor is used to develop or reveal a view of, or regard for, the body are elaborated in the following chapters of this thesis.

Chapter Two provides an analysis of the metaphorical themes found in ATHM. These themes help create the overall CAM regard for the body as a whole, complex being that is contextualized by emotional, psychological, and spiritual aspects of the human experience. These metaphors include the body as whole, the body as complex, the body as self-healing, and the body as sacred.

Chapter Three outlines the metaphors found in the NEJM. These metaphors help create the overall allopathic regard for the body as being a generalized, fragmented, physical entity that is isolated from the contexts of the individual lives of each patient. There are eight separate metaphorical themes that make up this regard, twice as many themes as are present in ATHM. This is due, in part, to the fact that metaphorical language is used more frequently in the NEJM than in ATHM. Because there are so many metaphors in this chapter, the chapter has been divided into three sections. The first section in this chapter is titled "Body of Knowledge." This chapter reveals the



metaphors of the body as passive, the body as dominated, and the body as fragmented. These metaphors serve to establish a foundation for understanding some of the ways by which, the body is overpowered by medical institutions. The next section is titled "Bringing the Body to Order." It offers two primary metaphors that, together, exert an overarching metaphor of the body as ordered. These two metaphors include the body as structured and the body as mechanized. Finally, the section entitled "Body Management" focuses on the ways the fragmented body is manipulated and controlled by medical institutions. This section includes three primary metaphors -- the body as controlled, the body as conflicted, and the body as regulated. Here, the values of competition and violence are revealed as integral to the ways that medical practice manipulates and controls the body.

Chapter Four includes a comparison of the ways that allopathic metaphorical themes are presented or contradicted in ATHM. There is no equivalent comparison for the NEJM because there are no examples of CAM metaphors or CAM ways of knowing the body presented in the NEJM. The implications of this difference are discussed in detail in Chapter Five, the discussion chapter of the thesis.

## **Chapter Two**

### **Body, Mind, and Spirit: Metaphors in ATHM**

Throughout ATHM, the body is portrayed as a whole being that is complex and contextualized by psychological and spiritual aspects of patients' lives. Throughout ATHM, the emphasis is on the human being as a whole, rather than on the part of the body that is being treated. Treatment in ATHM is portrayed as healing the patient, as opposed to fixing the body in the NEJM. This contextualizes the individual patient in those emotional, psychological, and sometimes, spiritual aspects that make each patient unique as human beings and human bodies. This contextualizing of the whole human makes it impossible for the body to be generalized in CAM discourse to any extensive degree. Instead, emphasis is placed on wholeness and complexity of the body. In addition, the body is defined as self-healing and sacred through discussions of disease, healing, and the practices of CAM.

#### **The Body as Whole**

The metaphor of the body as whole appears throughout the articles in ATHM. The definition of wholeness as a metaphor in this context includes a continued focus on disease and healing as functions of a whole human being. This occurs in the journal through a depiction of patients not simply as physical bodies, but as whole human beings, a perspective that is uniquely well-developed in ATHM. Particularly, the metaphor of the body as whole appears as an important aspect for practitioners to work with as part of the healing process. This is accomplished in two primary ways. First, the body is depicted as being intricately connected to the mind and spirit as part of a whole human being who must be treated as whole in order to be healed. Second, the body is implied to

be whole when patients' connections with the world outside themselves are discussed as part of healing processes. These connections embed the body in the lives of individual patients, reinforcing the aspect of the contextualized body that is powerfully represented in ATHM.

The first version of this metaphor includes the depiction of the body as being connected to the mind and the spirit as part of a whole human being. This connection is often referred to as the bodymind. The concept of the bodymind provides an overarching metaphor that defines and guides much of CAM practices. The bodymind, as I discuss in the introductory chapter of this thesis, is a term used commonly in CAM discourse to emphasize the importance of the mind and spirit, as well as the body, in the processes of health and disease (Darwin, 1999; Epstein, 2000). The bodymind appears in the pages of ATHM in discussions of the connections among the body, mind, and spirit as important elements of healing. These kinds of references are woven into almost every article in the journal, including scientific research articles. For instance, in a research article, "touch therapies appear to engage the recipient in an integrated experience that links body, mind, and spirit in a unique manner that allows the recipient to experience paradox" (Engebretson & Wardell, 2002, p. 52). Further, a book review later in the journal provides a discussion of "caring for the whole person in the context of the connectedness that defines us," and the importance of "integrating care of the human spiritual into healthcare practice" (Dossey, B., 2002, p. 115). By discussing the existence and the importance of different aspects of patients' corporeality, this journal creates a metaphor of the body as whole. The fact the these kinds of references to the body as part of an

integrated, whole human occur throughout the journal and in various forms of articles speaks to the centrality of this concept in the paradigms of CAM.

The discussions of the body, mind, and spirit in ATHM provide a particular configuration of portraying the body as whole with an element of fragmentation. By dividing the body, mind, and spirit into categories, fragmentation of the human self is part of the definition of these aspects. However, the discourse consistently redraws the connections among them, making the discursive division of the body, mind, and spirit more a rhetorical tool to describe aspects of the human experience than a metaphor for the body. An example of this configuration of division and connection appears in a research article in which researchers "identified categories of relaxation, physical sensations, cognitive activity, and emotional and spiritual experiences" (Engebretson & Wardell, 2002, p. 49). This is different from the allopathic tendency to fragment the body in that these categories define the human experience outside the physical body and, therefore, broaden the scope of how the body is seen through the gaze of medical institutions.

The connections among the body, mind, and spirit portrayed in ATHM are made especially strongly in reference to the process of healing the body. This reinforces the CAM perspective that the body must be treated as a whole human being in order to be healed effectively. This is apparent in an article that states that one medical approach "requires a belief that all illness is ultimately of the soul" (Rhead, 2002, p. 114), which places the connection between body and spirit in the context of the processes of disease. This occurs again in a research article in which CAM treatments are said to be "based on

the principle of treating mind, body, and spirit simultaneously to achieve maximum effects” (Mehl-Madrona, 2002, p. 39).

The connections among the mind, body, and spirit that help create the metaphor of wholeness also appear in ATHM when critical references are made to allopathic medical practices that fragment the body. This appears in an article in which:

In this article we [the authors] suggest that despite decades of compelling research in such fields as behavioral medicine and mind-body medicine, a more integral, less fragmented approach is still needed. We argue that one of the obstacles to realizing a more holistic-oriented medicine (ie: biopsychosociocultural) has been the lack of a comprehensive conceptual framework. (Astin & Astin, 2002, p. 70)

This example offers the implication that conventional medical practices are not "integral" or "holistic-oriented," but are instead "fragmented." Such an implication, and the solution suggested by the researchers, offers the idea that CAM therapies are holistic in their views of the body.

The second way that the metaphor of the body as whole is emphasized occurs when patients' connections with the world around them is discussed as an important aspect of healing. The implication is indirect, but important in that this emphasis implies the wholeness of the body by referring to it as a whole being that is not only a corporeal entity, but a spiritual one as well.

This concept is very much an important part of the distinct way of knowing that is inherent to the CAM paradigm. A holistic approach to healing is mentioned explicitly and often in ATHM, which continually emphasizes the metaphor of the body as whole. For instance, an article about a healing center states: "Because the center treats the whole

child instead of the disease, symptoms must always be addressed in the context of their cause and the reality of the child's life and lifestyle" (Chilton, 2002, p. 100). Here, the body is portrayed as part of a whole human whose being is contextualized by connections to the world outside the body.

Another way the metaphor of wholeness appears in ATHM is in a research article in which reports from patients who receive Reiki, an energy therapy, include, "It felt like I wasn't breathing at all ... like parts of my body would disappear because I really couldn't feel them," and, "I'm not aware of where my body ends and begins" (Engebretson & Wardell, 2002, p. 51). These descriptions present a view of the body as being part of something greater than its physical parts by maintaining the subjectivity of patients despite the experience of losing touch with the physical self. Also in an interview in the journal, a practitioner describes the importance of spiritual practices in his work with "a central practice of shamanism was the 'journey,' or the out-of-body experience" (Roger Walsh, 2002, p. 81). Such descriptions of patients being beyond or other-than their bodies provide a framework by which the body is seen as a part of something greater than its corporeal existence. The fact that these references are made in a medical journal suggest that the body itself is seen as a whole being in the CAM paradigm – a being which can then be a part of something beyond itself.

This body wholeness appears in the editor's introductory section in ATHM: "Humans often behave as if they were a single 'particle,' so to speak, even though they are separated at great distances as in distant healing" (Dossey, L., 2002, p. 104). Other references to the body in relation to other bodies appear in a study of the "effects of remote, retroactive, intercessory prayer on outcomes in patients with bloodstream

infection” (Leibovici, 2002, p. 88). By portraying the body as being connected to other humans through prayer, this reference helps create the metaphor of the body as whole in that it is not divided within itself but is instead connected to humanity as a whole.

This metaphor also appears in ATHM when:

What we think of as the ceiling of [human] development is not the ceiling – whether it's moral or cognitive development or motivation or any number of dimensions of capacities. Current mainstream research shows that there are postconventional transpersonal stages. (Roger Walsh, 2002, p. 78)

With the use of the term, transpersonal, to describe the capacities of the body, the possibility of connecting with extra-bodily experiences as an aspect of healing is created. This frames the body as a whole human being and places this being in the context of human relationships to the outer world. The body itself is regarded as a fragment of a larger metaphorical body -- that of humanity as a whole. This version of the metaphor speaks to the values of connection and wholeness that so much of CAM uses to define itself, and which contrast distinctly with the importance of fragmentation evident in the dominant discourse of allopathic medicine.

Another way that the importance of human relationships in healing the body appears in ATHM occurs when attributes such as love and altruism are mentioned in the text for their importance in the healing process and the practices of CAM. These examples provide a composite of the two ways that the body as whole appears in that they draw from the bodymind concept by incorporating emotional attributes with the importance of patients' connections with their outer worlds. One article contains a request for proposals to study “the human potential for loving and other-regarding

emotion and behavior through studies in all scientific disciplines, from human development and epidemiology to healthcare, positive psychology, evolutionary biology, and economics” (New Institute, 2002, p. 28). This study presents an important aspect of the confluence of this subordinate discourse with the dominant discourse of allopathic medicine – the attempt to frame non-rational human aspects, such as love, into the confines of scientific research, a topic I return to in Chapter Four.

The study of love presents further evidence that the body is framed in the metaphor of wholeness in that it is placed in the context of a whole human being who experiences emotions and connections with other humans. In addition, the journal presents this metaphor as an important part of the processes of healing and disease. More evidence of this includes a discussion in another article of finding ways of “cultivating and increasing altruism” (Roger Walsh, 2002, p. 79), and “cultivating other helpful emotions, such as compassion and sympathetic joy, which is feeling joy at other people’s joy” (Roger Walsh, 2002, p. 80). The importance of these non-physical aspects of human beings in the processes of healing are reinforced in the article when:

... so much of human suffering and our global problems reflect our individual and collective states of mind. An enormous amount of suffering is created out of ignorance, fear, greed, jealousy, and so forth. And to ameliorate these underlying causes of suffering requires that you have some understanding of them. So the depth of your own inner work is really the factor determining how effective you can be in helping to relieve the inner causes of suffering of others and of the world. (Roger Walsh, 2002, p. 84)



The concept of suffering is a part of the discussion of disease in this journal.

When amelioration of suffering is said to require that “you” understand aspects of human emotion, it is unclear whether the author is referring to patients or practitioners, though the fact that the intended audience for the journal includes practitioners makes it likely that it is practitioners who are meant to understand these emotional aspects in order to provide effective healing practices. The author, then, connects the importance of practitioners working with the connections of mind, body, and spirit within themselves as part of providing this holistic approach to their patients’ healing. These kinds of discussions reinforce the metaphor of wholeness by reinforcing the connections among the body, mind, and spirit, and by then connecting this whole human being to other human beings.

The scope of the metaphor of wholeness in the text is extensive. References to wholeness occur in almost every article of the journal, revealing this metaphor to be foundational to CAM practices and discourses. This metaphor also provides a foundational function in terms of laying a path for understanding the other CAM metaphors that occur in ATHM, including the body as self-healing, the body as complex, and the body as sacred. All of these metaphors rely on the concept of wholeness in order to function in the text.

### **The Body as Self-Healing**

The metaphor of the body as self-healing arises in ATHM mainly through direct references to the self-healing abilities of human bodies. The definition of this metaphor is more direct than many other metaphorical themes found in the journals. It includes

references to the body as an entity that has the ability to perform healing independently and from within itself. This is a concept that is not unique to CAM perspectives, but it is uniquely emphasized in CAM institutions (Darwin, 1999), as well as through metaphors for the body in this analysis of ATHM. The portrayal of the body through a process or potential for self-healing emphasizes a view of the body as an active participant in the processes of health and disease. The active role assumed by the body in ATHM provides a direct opposite to the metaphor of the body as passive found in the NEJM and that is apparent to a smaller degree in ATHM. These are discussed in later chapters. In this section, I outline the metaphor of the body as self-healing by describing, first, the ways that the body is portrayed as having an innate wisdom, and second, the ways it is portrayed as having self-healing abilities that must be supported by practitioners as part of medical practice. Throughout this section, I elaborate the ways that the body is portrayed as being active in the healing process in order to provide discussion of the unique way of knowing the body that are demonstrated by CAM through this metaphor.

The first way the metaphor of the body as self-healing appears in ATHM is when the body is described as having an innate wisdom that enables it to heal. These references arise often from the metaphor of the body as whole when the body wisdom is a result of or a function of the connections among body, mind, and spirit. One author states that “a remarkable array of psychological potentials and capacities await us as our human birthright .... And that’s what spiritual practices, properly applied, can do” (Roger Walsh, 2002, p. 78). This passage reveals that the body inherently contains healing potentials. When “a remarkable array” of potentials for healing is acknowledged to exist in the body, the metaphor of self-healing is reinforced. The body is said to contain a kind of wisdom

in these potentials. Later in the journal, the topic of “trusting the body wisdom” (Dossey, B., 2002, p. 115) as an aspect of healing is mentioned, reinforcing the idea that the body has an innate wisdom that plays a part in the healing experiences of patients.

The idea that there is an innate wisdom in human bodies that informs the processes of healing leads to the second way the metaphor of the body as self-healing appears. The body is portrayed as having self-healing abilities throughout the articles in ATHM, placing CAM practitioners in the role of supporting these self-healing abilities as part of CAM practices. This is apparent in a research article in which, “treatment served to activate the patients’ own self-healing response, which was the most important ingredient” (Mehl-Madrona, 2002, p. 46). Also, in another research article, “Healers conceptualize the process of healing as facilitating self-healing by balancing the recipient’s energy,” and therapeutic “changes may be very effective for promoting the health – in particular, self-healing – of the individual” (Engebretson & Wardell, 2002, p. 52). When this professional journal emphasizes the possibility that human bodies are self-healing and that physicians’ roles include supporting self-healing in patients, the relationship between patients and physicians becomes one of supportive interaction. This supportive relationship is described in further detail in the same article when:

The interaction [between patient and practitioner] required both parties to engage in the giving and receiving role simultaneously, thus an inherent paradox. In receiving Reiki, the recipient also gives the master the gift of acceptance. The master, in accepting the recipient, gives the gift of Reiki. Being accepted and the corollary response of being receptive was expressed as feeling "cared-for." One participant commented: "[I felt] acceptance of what is happening, [it was a]

mutual thing where nothing would happen to you if you didn't want it to."

Receptivity was exemplified as follows: "You don't earn this. You don't have to worry about it if you deserve it or not; it's there and you enjoy it. (Engebretson & Wardell, 2002, p. 52)

Here, the process of healing is depicted through a mutually supportive relationship between practitioners and patients when both are said to "engage in the giving and receiving role simultaneously" to accomplish healing. Here, the patient's own abilities to heal are regarded as equally powerful and important as the expertise and skills that the practitioner offers.

The metaphor of the body as self-healing is reinforced further in ATHM when "the art of clinical medicine is derived from engaging in dialogue and establishing a partnership with the patient to better understand her experience of illness" (Chez, 2002, p. 33). This example reinforces the role of the CAM healthcare providers as supporting the self-healing processes of patients. The metaphor of the body as self-healing is also apparent in a description in the journal of homeopathic medicine, a form of CAM therapy, when "the homeopathic remedy [is] a key that opens a lock" (Riley, 2002, p. 112). An implication here is that the remedy serves to "open" the body's own healing abilities. The role of the practitioner here is to find the key that will properly serve the already existing healing functions of the body.

The scope of the metaphor of self-healing is more limited than the other three metaphors found in ATHM. Because it occurs specifically, it is less repetitive, but is more forcefully portrayed in terms of being directly referenced. This metaphor, although it appears less often, is present across a broad range of body topics and article formats in

the journal. Further, the concept of self-healing, in its specificity, is strongly articulated throughout the journal, making it a vital component of the unique ways of knowing of CAM.

### **The Body as Complex**

The metaphor of the body as complex appears in ATHM as a function of self-healing and wholeness. Complexity in this context includes a strong emphasis on connections within the physical body, as well as among the body, mind, and spirit, through references that resist oversimplifying but, instead, rely on a continued acknowledgement of the complicating factors involved in connection. By refusing to fragment the body, this discourse continually reinforces the complexity that is inherent in the connections that exist within the body. Together, these metaphors serve to present the body as a whole, complex human being whose healing processes must be contextualized by the life experiences of each individual patient. The specific metaphor of the body as complex arises in the text in two ways. First, complexity is evident through direct references to complexity in the body, and, second, it appears as descriptions of the body as paradoxical and non-linear. Throughout the metaphor of the body as complex, an important dynamic arises in the text – that of the struggle to mold this complexity into a scientific discourse that appeals to an allopathic audience. This struggle illustrates the ways that CAM ways of knowing are shifted and put at risk as they are compromised in order to fit the scientific paradigm.

The body is described as being complex throughout various articles in ATHM, emphasizing a presentation of the body as part of a whole being, rather than as a

simplified physical form. This occurs when a model for medical practice is said to "provide an elegant framework for understanding the complexity of ... the placebo effect" (Astin & Astin, 2002, p. 72) in the body. Here, a process in the body, the placebo effect, is defined as being complex, reinforcing the metaphor of the body as complex. Later in this article, the body is defined as complex when the "activity of taking a pill also occurs ... in a series of complex, reciprocal interactions, all of which may ultimately lead to a biochemical ... or emotional ... therapeutic response" (Astin & Astin, 2002, p. 73). Also, a strong example of this portrayal occurs when ATHM authors discuss the failure of allopathic medical institutions to address the complexity of body. This occurs when authors express concern regarding "the continued dominance of a paradigm in medicine and science that too often fails to consider adequately or to integrate the complex dimensions of human lives" (Astin & Astin, 2002, p. 70). This passage implies that CAM offers an alternative to medical and scientific failures by acknowledging and integrating complexity in patients. In this example, the complexity of the body is defined as being unavoidable and important to medical practice, reinforcing the importance of the metaphor of the body as complex in CAM discourse. This example also portrays the struggle to mold the "complex dimensions of human lives" into a scientific paradigm. Further, the body is portrayed as a part of an entire human, rather than as an isolated physical entity.

Another article states that, "In order to encompass the observed effects, a substantially more fundamental level of theoretic model will need to be deployed, one which more explicitly acknowledges the role of consciousness in the definition of physical reality" (Dossey, L., 2002, p. 13), and then asks the question, "Is it possible to

arrive at a language of healing that is true to the experimental findings?” (p. 15). In these examples, the metaphor of the body as complex is reinforced by the acknowledgement that scientific and discursive models must be made complex enough to encompass the human experience. This example provides a hint of the tension that exists in ATHM between the two primary ways of knowing of CAM and allopathic medicine by questioning the struggle to fit the complexity of the body, as it is acknowledged in CAM discourse, into a language that can be seen as valid by allopathic and other medical practitioners.

The metaphor of the body as complex is directly related to the metaphor of the body as self-healing when a study is said to “advance the understanding of the body’s complex system of self-regulation and contribute to our efforts to promote health and prevent disease as well as supporting healing and symptom reduction in disease” (Engebretson & Wardell, 2002, p. 53). Here, the metaphor of the body as complex appears in combination with the metaphor of the body as self-healing. Also, the role of CAM practitioners as supporting the healing actions of human bodies is reinforced in this use of the metaphor of complexity. It is important to note that complexity, in this example, is not presented as a hindrance to healing, but instead is acknowledged to be integral to the healing process.

The second way that the metaphor of the body as complex arises in ATHM is through portrayals of the body as paradoxical. This occurs in two articles, primarily in one research article on Reiki, a form of touch therapy. This research article more explicitly addresses the usefulness of the metaphor of complexity in the body to the work of practitioners. Here, paradox is described as the only way by which to understand

the complex experience of the body: "In addition to the paradoxical nature of the experience [of receiving Reiki treatments], paradox provided a lens with which to examine the study findings" (Engebretson & Wardell, 2002, p. 52). In this case, paradox presents a particular effort on behalf of the researchers to express the complexity of the body. This effort emerges in the discourse when complexity is defined in the article as "paradox refers to experiences that are inexplicable or self-contradictory or contradictory to common sense" (p. 50).

In this discussion of paradox, complexity in the body is portrayed in ATHM in terms of the challenge of finding scientific and discursive models that adequately describe the complexity of the body. This discussion reinforces the critique, outlined at the beginning of this section, of scientific medical paradigms for avoiding such complexity in the body. It also illustrates an important dynamic that is evident in ATHM – the struggle to fit CAM ways of knowing the body into a scientific discourse that appeals to an allopathic audience. The article addresses a need for institutions of medicine to adjust to the complexity of the body when, "the paradoxical findings suggest that many of the previous models employed to investigate touch therapies, including the linear model of relaxation used to structure this study, are not complex enough to capture the experience of the recipients" (Engebretson & Wardell, 2002, p. 52). The emphasis on the individual experiences of patients allows CAM discourse to view the body as complex by contextualizing the experience of therapy into the overall life of each patient.

The scope of the metaphor of the body as complex is far-reaching. Because this metaphor appears through both explicit discussions of complexity, as well as more subtle references to the body as complex, it is emphasized in its appearance at different



rhetorical levels in the texts. The emphasis is reinforced by the repetition of the metaphor throughout the journal. Such a well-developed and far-reaching theme represents a metaphor that is, like the metaphor of wholeness, foundational to CAM ways of knowing the body.

### **The Body as Sacred**

The definition of the term, sacred, is not always easily agreed upon in our culture. Beliefs about the sacred are often deeply personal and tied to religious or spiritual experiences that can be difficult to define and articulate. However, this does not diminish the importance of the sacred in people's lives, and, in ATHM, the importance of the sacred in healing. There are multiple definitions for the term, sacred. In this analysis, I rely on several definitions of the sacred as being "made or declared holy," "worthy of respect and venerable," as well as, "of or relating to religious objects, rites, or practices" to help describe how the body is portrayed as sacred in ATHM. The metaphor of the body as sacred provides what is perhaps the most radical component of the CAM ways of knowing the body presented through metaphor in medical discourse in that it is often presented in ways that challenge the very physicality of the body through describing it as a spiritual being. The metaphor of the body as sacred relies upon a particularly non-scientific regard for the body. This metaphor is embedded in the perceived deep divide between science and the sacred in modern, U. S. culture. In ATHM, the body is portrayed as being sacred in two ways. First, it is described directly as sacred or as magical, and, second, the processes of the body are tied strongly to the concept of the infinite in regard to healing.

The body is portrayed as being sacred through the direct use of spiritual and sacred terminology to describe the body and the processes of healing. One article states that “healing is reflected in a state of peaceful knowing of one’s connection with all of life and one’s purpose within that sacred web” (Rhead, 2002, p. 114). This connection to the sacred web of life is an extension of the metaphor of the body as whole in the way it embeds the body in a context of connection to beings outside its own corporeal structure.

The body is also referred to directly as sacred when healing is defined as being a spiritual endeavor. In a research article in ATHM, the CAM therapeutic practice of Reiki is compared to ritual healing as follows:

Liminal states of consciousness, by definition paradoxical, are frequently associated with profound religious experience and have been linked to ritual healing practices across cultures. Liminal or altered states are reported as optimal states for healing. Generally, in ritual healing, both the practitioner and recipient share a common belief in the symbolic nature of the activity. For example, the Catholic Church has healing rites for anointing the ill, in which both parties believe in the sacredness of the experience. The participants in this study exhibited liminal states; however, they did not share a specific belief system regarding the ritual use of Reiki. This suggests that laying-on of hands is deeply ingrained as a form of ritual healing and may tap into universal healing archetypes. (Engebretson & Wardell, 2002, p. 52)

In this example, the CAM therapy of Reiki is compared to ritual healing performed by priests or other religious healers. In the comparison, a shared sense of the "sacredness of the experience" of healing is asserted as being an important part of ritual

healing and, by comparison, an important part of the "universal healing archetypes" accessed by Reiki. The juxtaposition here of exploring a "ritual" or "sacred" healing experience through scientific research is remarkable. The article format is a typical scientific research model in which a research objective is established, participants are chosen, a study is conducted, and scientific conclusions are drawn. In contrast, however, the subject of study is defined as being ritualistic and tied to religious ceremonies that are believed to be outside the realms of scientific inquiry.

In many ways, this study presents a dynamic that is somewhat common throughout ATHM, which is the effort to fit CAM ways of knowing into an allopathically valid model of scientific discourse. This is much like trying to fit a round peg into a square hole, a dynamic that is discussed in more detail throughout the comparison chapter later in this thesis. In this particular study, the convergence of science and the sacred is accomplished through a discussion of paradox in the body. In the article, "an intriguing pattern found throughout the [patient] narratives was that of paradox, both in the aggregate and on an individual basis. Paradox refers to experiences that are inexplicable or self-contradictory or contradictory to common sense" (Engebretson & Wardell, 2002, p. 50). When paradox is used as a way to explain the body and the processes of healing, the body is defined as being, to some degree, non-rational. This places the body and processes of healing outside the confines of scientific inquiry by acknowledging that those aspects of humans that cannot be understood through science are still a vital part of medical practice and are, therefore, included in medical discourse.

Other non-rational explanations for the body and the process of healing are offered in ATHM, such as in a discussion of the effects of prayer on healing in which:

...healing research goes beyond using healing intentions or prayer to cure disease. The most important issue in this research is not how large the effect sizes are in any given experiment, *but whether or not the effect exists at all*. If it does, the universe is utterly different from the picture given to us in modern science. Why? If consciousness, through whatever mechanism, can exert nonlocal effects elsewhere in the world, then it is, itself, in some sense nonlocal. And if consciousness is nonlocal, then it is infinite, because a limited nonlocality is a contradiction in terms. Nonlocality implies *infinitude* in space and time, and thus eternity and immortality. (Dossey, L., 2002, p. 109)

Here, the infinitude of consciousness is attributed to the healing process and the existence of all human beings. The fact that this discussion is included as part of a discourse on medical practice reveals that importance of that supposedly eternal, spiritual connection to the practices of CAM. The use of terms such as eternal and infinite in the passage invoke a sense of mystery. When the body is portrayed as being just an aspect of the overall, spiritual human, the body itself becomes sacred by being connected to or a part of a greater mystery of being human and the processes involved in healing.

This expansive view of medical practice and the body is further acknowledged in ATHM in a research article in which: "Some people report a near-death experience (NDE) after a life-threatening crisis. We aimed to establish the cause of this experience and assess factors that affected its frequency, depth, and content" (Lommel, Wees, Meyers, & Efferich, 2002, p. 89). In this example, the exploration of near-death experiences involves an acknowledgement of the profoundly spiritual aspect of medical practice as it operates in the space between life and death. Ironically, this study

represents an effort to confine the profoundly personal experience of death into a scientifically measured, through "frequency, depth and content," into the scientific discourse that is used in allopathic medicine, reinforcing the tension exhibited by trying to fit the round peg of CAM ways of knowing into the square hole of allopathic discourse. Beyond this tension, the acknowledgement of the spiritual continuation of human beings beyond the body that is inherent to a near-death experience helps to frame the body as sacred by framing it in terms of spiritual being. When the body is defined as being sacred, the experience of medical practice takes on a particular set of meanings, including the metaphors of the body as self-healing and complex, as well as connected to the mind and spirit, which help define the unique approach of CAM therapies to healing the body.

The second primary way that the metaphor of the body as sacred appears in ATHM is through portrayals of the body as being on a healing journey that is individual to each patient and can only be defined through the personal experiences of each patient. This aspect of the metaphor of the sacred is strongly supportive of the CAM way of regarding the body as an individual being that cannot be generalized into a stereotyped physical form, but instead must be contextualized by the individual's personal healing narrative. The metaphor of the sacred healing journey is implied and when a book is said to have "a practical application for healthcare professionals as a resource and companion for the unfolding journey of the human spirit" (Dossey, B., 2002, p. 114), and, in the same article, "ecology and spirituality are also addressed [in the book], with guidelines in the co-creative partnerships with nature.... and gifts of connecting through sacred and secular rituals for moving through emotions, life transitions, and connecting with others

and nature" (Dossey, B., 2002, p. 115). Here, the body is portrayed as being on a sacred journey that involves spiritual connections as parts of the healing process.

An approach to healing as a sacred experience is also revealed in ATHM when "the meaning of illness must be addressed through contact with the divine" (Rhead, 2002, p. 114), and, in the same article, when "illness is ultimately of the soul" (p. 114). In addition, the importance of narrative as a form of honoring the body's spiritual healing processes is suggested when patients are encouraged to find "ways of sharing our sacred journeys" (Dossey, B., 2002, p. 115), again reinforcing the portrayal of the body as sacred. These portrayals of spirituality and the sacred as part of healing is described in more detail when:

A person's story can be shared or reflected on in the journey [of healing], with mystery and story as the carriers of wisdom. Steps in sharing and living life stories and the circles of our lives provide valuable new insights into the power of stories in healing. (Dossey, B., 2002, p. 115)

This passage cites the power of personal narrative, drawing the attention of the medical gaze toward a personalized and spiritual understanding of patients. This reinforces the CAM way of knowing the body as an individual human being, as well as the CAM metaphor of the body as sacred. In these portrayals of healing, the patient is defined as being more than physical. Discussions of the "human spirit" and the "soul" as parts of medical practice define the body as simply a part of the overall human being who is complex, self-healing, and sacred.

The scope of the metaphor of the body as sacred is far-reaching, though it is not as forceful in its appearance as are the other three CAM metaphors of wholeness, self-

healing, and complexity. References to the body as sacred recur often enough and are well-developed enough that they represent an important element of CAM ways of knowing. Particularly, the fact that references to the sacred occur and are repeated in conjunction with an effort to appeal to a conflicting scientific parallel points to the importance of this metaphor in the paradigm of CAM.

### **Chapter Three**

#### **The Body Physical: Metaphors in the NEJM**

Metaphorical references to the body appear far more frequently and are further developed in the NEJM than in ATHM. As a result, there are twice as many metaphorical themes developed in allopathic medicine than in the discourse of CAM. This chapter outlines the eight metaphorical themes found in allopathic medicine that help to create an overall regard for the body as a fragmented, generalized entity whose physicality is removed from other components of human life, and which is subordinated to medical institutions and practices. This chapter is divided into three sections. This first includes the metaphors of passivity, domination, and fragmentation. The second includes the overall metaphor of order as it is created through structural and mechanical metaphors. The third section in this chapter includes the metaphors of the body as controlled, conflicted, and regulated by allopathic medical institutions.

#### **Body of Knowledge: Passivity, Domination, Fragmentation**

In this section, I outline discursive metaphors that are foundational to the institutions of allopathic medicine and the ways they relate to the body. The particular metaphors of the body as passive, the body as invaded and dominated, and the body as flattened and fragmented by allopathic medicine have been explored to some extent (Cartwright, 1995; Foucault, 1975/1977). Because these metaphors have yet to be explored in terms of naturopathic practice and other CAM therapies, this project explores the ways CAM discourse differs from or mimics allopathic discourse in its tendency to render passive, to invade and dominate, as well as to flatten and fragment the body. A



major finding of this project is that metaphors for the body are far more present and more developed in the NEJM than they are in ATHM, a comparison I describe in a later chapter.

These metaphors are very much indicative of the medical institutional gaze and how it is exerted upon the human body. I use this chapter to investigate the gaze and its disciplinary power as it appears in the NEJM. First, in each journal, the body is established as being passive. Next, the metaphor of the body as passive is extended into a portrayal of it as a being open to invasion and domination by the medical gaze. Finally, the body is flattened and fragmented, much like a map, in what might be seen as an ultimate encompassing and conquering of the body by the medical gaze as exerted by allopathic institutions and discourse.

## PASSIVITY

Some of the academic criticisms of allopathic medical language and practice focus on the tendency of medical institutions to exert control over the body and its processes, often by invading, dominating, and fragmenting it through both language and practice (Cartwright, 1995; Foucault, 1975/1977). These processes can only take place once the body as has been established as a passive field upon which action occurs. In this analysis, the definition of passive includes the body being defined through a marked lack of active terms or references to active healing. When the body is portrayed as being passive, it is placed in a position that can easily be manipulated into subordination, a process that occurs in later metaphors. Through the foundation of the metaphor of passivity, an inactive object is much easier to dominate and control than an active human

being. I found that the metaphor of the body as passive occurs in two primary ways. First, medical discourse tends to refer to the actions of disease rather than to the actions of the body itself, thereby rendering the body passive. Second, the body is inactivated by a tendency of medical discourse to depict the process of healing as a result of the interplay between disease and medicine as actors upon a body that is passive.

The primary way that the metaphor of passivity occurs is by referring to diseases as actors upon the body, thereby subtly but powerfully relegating the body to being a passive landscape upon which action occurs. The body is particularly subjected to this kind of inactivation in the NEJM. In a research article in this journal, "multiple sclerosis is an inflammatory disease of the central nervous system that destroys myelin, the insulation that surrounds axons. Oligodendrocytes (the cells that produce myelin) and nerve fibers are also destroyed" (Chang, Tourtellotte, Rudick, & Trapp, 2002, p. 165). In this example, disease is portrayed through the metaphor of the passive body. The disease is said to act upon the body when it "destroys myelin." In another article, "clinically definite multiple sclerosis had developed in 68 percent of the patients" (Brex et al., 2002, p. 161) in a study, a phrasing that portrays the disease as active and the body as passive by placing the body in the role of an object that is acted upon by the developing disease. This phrasing is repeated several times in this article, and appears elsewhere in the NEJM, particularly in the "Current Concepts" article when the diagnosis of celiac sprue "should be considered in pregnant women in whom severe anemia develops" (Farrell & Kelly, 2002, p. 181), and when "many conditions occur in association with celiac sprue" (p. 181). Again, the body is inactivated as the disease is portrayed as active through the phrasing of these references. The implication that the body is passive is evident in the

NEJM. When, in the NEJM, a disease is said to run "a variable course, with relapses and remissions; with repeated episodes of effusion and resolution" (Case Records, 2002, p. 190) across the landscape of the body, a particular kind of relationship is implied -- one in which the body is not the actor, but is simply the field upon which action takes place.

The second development of the metaphor of the body as passive appears when healing is depicted through the actions of medical practice interchanged with the actions of disease upon the passive landscape of the body. It is common in the NEJM to refer to a medical procedure being performed on the body. One potent example is in the case records section of the NEJM, in which procedures are said to be performed four separate times, such as when, "bilateral laser peripheral iridectomies were performed" (Case Records, 2002, p. 189) on a patient. Additionally in this article, the interplay of disease and medical practice are vividly depicted in a way that regards the body as neutral and passive: "The angle-closure glaucoma did not respond to iridectomy, which is typically curative, and maximal medical therapy was required for the glaucoma after the surgery" (p. 190). In this example, the body is not depicted as an active participant in the disease or the healing process. Instead, disease is depicted as not responding to the actions of medicine. The examples from this article are mirrored in other article formats from both the primary and the secondary analysis texts.

The metaphor of the body as passive appears in the texts when disease is depicted as active, when healing is seen as a result of the actions of medicine, and when the body is described as a passive natural landscape. In the NEJM, the body becomes a passive landscape upon which the drama of disease and medicine is played out. It becomes merely a background setting, a context, or a subtext, revealing the value of the drama and

an important devaluing of the body itself and its processes. The fact that this metaphor recurs in almost every reference to the body in this journal makes it a foundational theme in allopathic ways of knowing. Recognizing the metaphor of the body as passive is essential to understanding the foundations for some of the metaphors I will discuss later in this chapter, including the metaphors of domination and fragmentation, as well as those in later chapters.

## DOMINATION

The metaphor of the passive body provides a foundation for a vital process in allopathic medicine – that of viewing and creating images of the body. Seeing into the body is truly vital to allopathic medical practice, for healing can only be facilitated by seeing and understanding the body better. However, the intensity of envisioning that occurs in the NEJM, and in the allopathic practices this journal describes, conveys a particular containment and invasion of the body, providing a metaphor of the body as dominated. In this context, the definition of domination includes the body being placed in a position of submission both rhetorically and practically. This form of domination is particularly related to the metaphor of passivity in that the body is not being directed to act, but is simply held in the position of submission in order to be viewed. This metaphor provides a primary example of how the body begins to be portrayed as subordinate to medical practices. The fact that parts of the body are hidden and mysterious is tied to a cultural value that seeks to discover the unknown, a value that, combined with a depiction of the body as a mysterious territory, leads medical institutions to see the body as a territory that must be contained and dominated, then penetrated and invaded by medical

vision and practice. In this section I will discuss two ways that the body is dominated in medical discourse. First, the body is contained rhetorically in medical discourse. Second, healing the body is accomplished by an invasion by medical envisioning.

Containment of the body in medical discourse and under the medical gaze is an important form of domination of the body. Containing the body in order to heal it formulates an aspect of isolating its physicality from the other aspects of the human being. When the body is contained, those uncontainable aspects of human lives, such as the mind or spirit, are unacknowledged in the discourse. This metaphor of the body as dominated occurs in two primary ways in the NEJM. First, the body is presented through a framing of a “case,” and, second, the body is compared to research animals that are defined by their containment and domination by humans. The term, case, is used to contain the experience of the body or the body itself throughout the course of treatment points to this metaphor. The NEJM offers "Case Records of the Massachusetts General Hospital" and "Clinical Practice" in the primary analysis issue. The fact that these two sections label articles based on individual patients as cases places the experiences of disease and treatment into a container that is time-bound and solvable. When the body is replaced directly by the term, case, containment of the body is revealed to be an important aspect of the metaphor of the dominated body.

The ways that cases are portrayed and developed elaborates the domination inherent in containment. A medical case, as a metaphor for the body reveals the value placed on the processes of exposing, containing, and dominating the body through medical practice. One way this process is understood is in terms of how a case evolves, offering a template for the approach to solving a patient's problem that reveals the

importance of exposing, containing, and resolving the body, all of which compose the metaphor of domination for the body.

The "Case Records of the Massachusetts General Hospital" section of the NEJM follows this template. The first subtitle in the article is "Presentation of Case." In the "Differential Diagnosis" section, "this 58-year-old woman presented initially with angle-closure glaucoma and early cataracts" (Case Records, 2002, p. 190), then, in the voice of the author, "Early presentations may involve only one eye or even a solitary lesion, so I shall approach this case from a broader point of view" (Case Records, 2002, p. 190). In this example, it is a patient who "presents" loss of vision in her right eye, providing the first step to resolving the implied problem of the body -- exposing it to the view of medical practice. This use of "presentation" activates the patient and provides a contradiction to the metaphor of the body as passive. This kind of contradiction is not represented in any other article in the journal, whereas there is ample evidence for the overall metaphor of the body as passive. In addition, this article provides an important contradiction to the body as generalized in that it addresses the individual experience of one patient. However, the article overall seeks to understand this patient in terms of the generalized human body (a process that is detailed in the metaphor of the body as regulated later in this thesis), and therefore supports the metaphor of the body as generalized by seeking to understand one patient's body through the generalized form of the body.

Returning to the above example, initial evidence for the case is presented in the form of measurements of visual acuity and interocular pressure. Then evidence is collected from the urine and the blood in an effort to detect clues from inside the body.

The term, evidence, is used in other NEJM articles, such as when patients are said to "have evidence of steatorrhea ... on a microscopical evaluation" (Farrell & Kelly, 2002, p. 182), again reiterating the need to reveal the body, in this case microscopically, a form of envisioning that reinforces the metaphor of the body as fragmented. The importance of exposing and containing the body through measurements and examination leads to the final step in this case scenario. Finally, the effort of containing the body in the case and discovering its mysteries through detection of evidence lead to a solution to the puzzle in the form of a diagnosis. Cases are often portrayed as puzzles to be solved. In order to solve the case, the body must be seen. In the NEJM, "solid-appearing lesions under the retinal pigmented epithelium are seen.... [And] pigmentary changes like those seen in the case have been reported as late manifestations of systemic non-Hodgkin's lymphoma ... but such disorders are unusual in patients who appear healthy, such as the patient under discussion" (Case Records, 2002, p. 192). The reliance upon appearance and what is seen in this passage reiterates the importance of focusing the medical gaze upon the body in order to heal it.

The term, case, is used to encase the body throughout the NEJM. The prevalence of the term in the NEJM is evident in an article in which one part of a paragraph reveals multiple uses of the term:

Although metastatic tumors are the most common intraocular neoplasms, several features of the case under discussion are inconsistent with this diagnosis. In a comprehensive review of 520 cases of uveal metastases seen at a major referral center, nearly half the primary tumors were in the breast, and the most common site after the breast was the lung. Uveal metastases occurred in only a single case

of uterine cancer and in only two cases of ovarian cancer." (Case Records, 2002, p. 192)

When a case is "under discussion," the position of the body as an abstracted and dominated physical form is reinforced. The body itself is referred to through the abstracted container of a case. This encased body is then placed under the scrutiny of medical discussion. The isolated physicality of the body is then reinforced when tumors are counted and located by their sites within the physical body. The final sentence of this passage again refers to bodies directly as cases, cementing the abstraction of the metaphor of the body as a case. The prevalence of the term, case, in medical language reinforces the importance of containment of the body as a part of the metaphor of the body as dominated.

A second way that the body is contained in medical discourse is by comparing the generalized human body to the bodies of non-human animals that have been caged and dominated by medical institutions. When the human body is compared in this way, the aspects of patients that are uniquely human, such as the mind and spirit, are eliminated from the discourse and the gaze of medical institutions, reinforcing the isolation of the physicality of the bodies of patients. A practice that is commonly portrayed in the journals is that of using animal bodies in place of human bodies for medical experimentation. This practice and the way it is portrayed in medical discourse provide another form of containment of the body. In addition, when the body is conceptualized as including animal-like parts, its passivity is reinforced in that it is considered in terms of nonhuman animal bodies that have been tamed and dominated by humans. Studies on animal bodies are "in part about rendering docile and compliant the body of the [animal]



as a substitute for the human body" (Cartwright, 1995, p. 43). In medical experiments performed on both humans and animals, the body is positioned in order to yield knowledge about life processes. Cartwright argues that such studies exist "not [for] knowledge about the particular body ..., but the scientist's ability to track and discipline the broader life force the experiment embodies -- a force that traverses bodies and the technologies that monitor and transform them" (p. 42).

Cartwright (1995) posits that using nonhuman animals as surrogates for the human body involves both bodies in "a scientific narrative about disciplinary power and corporeal control" (p. 174). This practice is mentioned often in the NEJM. Interestingly, human and non-human animal bodies are compared to one another in fragments within this journal, which ties the metaphor of domination to the following metaphor of fragmentation. The brains of rodents are used to understand the development of multiple sclerosis in the human brain in one article of the NEJM, when "the density of oligodendrocytes [in patients' brains] ... was similar to that found in developing rat brain" (Chang et al., 2002, p. 165), thereby sectioning the bodies into tissues, and even into simple cells. Fragmentation itself is a metaphor for the body that will be elaborated upon in the next section. The use of animals in medical experiments, and the language used to connect animal bodies to human bodies reveals how the body is abstracted in a way that focuses the medical gaze on the physical body rather than on the various non-physical aspects of human lives.

In both practice and discourse, one of the purposes of using metaphor is to envision the body, to encompass it in an imaginary visual field in which it can be understood, evaluated, and acted upon. Foucault, in The Birth of the Clinic (1963/1973)

describes the dedication of the medical establishment to the task of gazing upon what is hidden in the darkness of the body:

Seeing consists in leaving to experience its greatest corporal opacity; the solidity, the obscurity, the density of things closed in upon themselves, have powers of truth that they owe not to light, but to the slowness of the gaze that passes over them, around them, and gradually into them, bringing them nothing more than its own light. The residence of truth in the dark centre of things is linked, paradoxically, to this sovereign power of the empirical gaze that turns their darkness into light. (p. xiii)

Intrinsic to the metaphor of the body as invaded is the effort of medical practice to shift what has been defined as invisible or dark in the body into light. There is evidence throughout both journals of the importance of the efforts of medical establishments to view the body, though more so in the NEJM. The effort to bring the body to visible light is often described through detection. "Detection" is used often in the NEJM to describe the process of seeking evidence for possible diagnoses in the body. In the NEJM, "oligodendrocyte processes extending to myelin internodes were not always detected within shadow plaques. Premyelinating oligodendrocytes were not detected in shadow plaques of the chronic lesions of multiple sclerosis that we analyzed" (Chang, et al., 2002, p. 170). In the same article, "stellate NG2 cells were detected in lesions without premyelinating oligodendrocytes" (p. 167), and, "the detection of premyelinating oligodendrocytes unequivocally establishes the presence of oligodendrocyte progenitor cells" (p. 171). The fact that "detection" is used in each instance for evidence of disease supports the metaphor of the body as invaded as it is portrayed as a mystery to be

unveiled. Detection is used often in other articles in the NEJM, such as when levels of antibodies “all become undetectable in patients who are on a strict gluten-free diet” (Farrell & Kelly, 2002, p. 181), and “levels of ... [an antibody] gradually become undetectable within three to six months after gluten is withdrawn from the diet” (Farrell & Kelly, 2002, p. 181). The use of detection as the primary way of viewing the body implies that the measure of success, like the process of diagnosis, lies in envisioning what is hidden in the body. This detecting vision requires containment and invasion of the body by medicine, creating the metaphor of the body as dominated.

The rhetoric of vision is extended in the NEJM to include a form of seeing when the body is monitored. In one article, a pharmaceutical remedy for chronic skin disorders is recommended "as long as renal function is closely monitored" (Kaplan, 2002, p. 179). Additionally, in another article in the NEJM, "monitoring of women for abnormal uterine contractile activity has very low predictive value for preterm delivery" (Greene, 2002, p. 146). This passage, although it leads to a dissuasion from monitoring in this example, reveals the use of seeing the body as a way of predicting and controlling it as an overall practice. Prediction and control are part of two metaphors that are elaborated later in this thesis. Through the use of envisioning the body to monitor it, the medical gaze appears through the metaphor of invasion not only for detection and diagnosis, but in order to dominate the body as it undergoes medical practice.

Envisioning moves beyond rhetoric and into actual medical practice through the use of tools which literally penetrate the body by encompassing or capturing it in an actual field of vision. Tools such as x-ray, ultrasound, microscopy, and endoscopy are engaged in order to "render visible parts of the living body that were previously

considered to be too interiorized, too minute, or too private to be seen by the researcher's unaided eye" (Cartwright, 1995, p. 23). By using technology to extend the range of medical vision into these regions, the practice of medicine focuses on the control of instruments and apparatus in an effort to control the body itself. The body is contained in vision fields provided by these tools. References to the use of such tools exist on almost every page of the NEJM. The two "Original Articles" (Brex, et al., 2002, pp. 158-164; Chang, et al., 2002, pp. 165-173) on multiple sclerosis rely heavily on evidence gathered from magnetic resonance imaging (MRI), tissue staining, and microscopy, the importance of which is supported by the presence of photographs included in the articles. In addition, the "Clinical Practice" article (Kaplan, 2002, pp. 175-179) on urticaria and angioedema (allergy-like ailments of the skin) utilizes blood analysis, another common tool for envisioning the body's hidden interior by measuring blood chemicals. The "Current Concepts" article (Farrell & Kelly, 2002, pp. 180-188) on celiac sprue includes an array of medical envisioning tools, including immunofluorescence of tissue that has been cut and removed from the body, as well as chemical analysis of blood, stool, and saliva. It also includes barium studies of the gastrointestinal tract which involves ingestion of barium by the patient who then undergoes imaging. This article also includes x-ray computed tomographic (CT) scan, and MRI. Perhaps the most potent format to demonstrate the value placed on penetrating and seeing the body is the section, "Images in Clinical Medicine" (Asmis & Girardet, 2002, p. 174), which relies completely on photoimages of their descriptions in order to relate to the body. These images are included in Appendix B as Figures B5, B6, and B7.

The scope of the metaphor of the body as dominated is established through repetition, recurrence, and forcefulness. References to containing and viewing the body are prevalent throughout almost every article in the NEJM, making this metaphor a central component of allopathic ways of knowing the body. The metaphor of the body as dominated is included in an overall medical vision of an abstracted patient-body that is passive and beholden to medical practice.

## FRAGMENTATION

Perhaps the most striking feature in representations of the body in medical discourse is the fact that the body is most often described in fragments -- cells, tissues, organs, and systems. This fragmentation offers a striking opposite to the metaphor of wholeness in ATHM. I have already discussed some of the discourse in these texts that compare the body with a landscape in order to portray it as passive and receptive to the invasion of the medical gaze. These ideas are developed further in medical discourse as the body becomes fragmented for the purposes of seeing, understanding, and evaluating it. In this analysis, the definition of fragmentation includes references to parts of the body in replacement of the whole. Specifically, references to the whole body or connections among body fragments are ignored in a profound focus on fragments in place of the whole. As I will elaborate in the later sections, fragmentation of the body also informs the process of institutional control of the body. Under the medical gaze, the landscape of the body is divided and mapped -- wild territory becomes tamed as it is laid flat and contained in the cognitive vision of medical perception. In this section, I outline the metaphor of the fragmented body by describing the ways the body is represented in

three parts. First, the body is flattened through portrayals on a two-dimensional surface. Second, and once flattened, the body is divided into fragments through the use of boundaries. Finally, the body becomes portrayed as fragments rather than as a whole, completing a process that defines the body through the overarching metaphor of fragmentation.

The first step of flattening the body can be compared to mapping the body. The process of mapping involves translating a representation of a structure onto a planar surface, essentially making a two-dimensional metaphor for a three-dimensional structure. This metaphor of the body as flattened is evident in medical discourse when the body is depicted in two-dimensional images as well as when the body is referred to through spatial terms which place it in a two-dimensional framework. Remarkably, there are thirty-six images of the body in one issue of the NEJM, a fact that will inform the later metaphors of the body as ordered through structure and mechanization. The immediate effect of using images to portray the body is a flattening through an effort to see or envision the body. When an image of the body is laid on a two-dimensional surface, such as on paper or on a computer monitor, it operates like a map by making a flattened metaphorical representation of a landscape that is inherently nonplanar. This process is further emphasized in the fact that there is a section featured regularly in the NEJM called "Images in Clinical Medicine," included in Appendix B as Figures B5, B6, and B7, devoted entirely to capturing the body in photographs. By placing a heavy focus on two-dimensional images of the body, these parts of the journal help establish a metaphor of the body as flattened.

In addition to the use of images, spatial terms are used to portray the body through the metaphor of flattening. In the NEJM, "in a patient with chronic urticaria who has no signs or symptoms suggestive of an underlying condition, laboratory testing is not indicated" (Kaplan, 2002, p. 178). By referring to health conditions as underlying, this example places the body in a spatial configuration in which some conditions are "under," suggesting that others are "above," or more readily available to the medical eye. This spatial configuration adds a third dimensional perspective, but holds the body in the plane of medical sight. More importantly, this sight is placed above the body with the use of the term, under, which reinforces the metaphor of the body as dominated by medical institutions. Particular spatial situations of the body in medical discourse are situated in a wider cultural understanding of the meanings of spatial configurations, and therefore reveal beliefs about the nature of the body held by medical institutions. The spatial polarity of up and down is one example how meaning has become attached to spatial terms. The body, especially the unseen body, is often configured as being lower than the medical gaze or medical practice. When a condition is depicted as "underlying," it falls into the spatial category of down which includes a host of cultural values including dark and bad (Osborn, 1967).

Representations of the body as being below medical practice are common in the NEJM. These are particularly apparent in the use of up and down as spatial metaphors for the body in light of terminology that discusses the body spatially. The body is sometimes referred to spatially in reference to itself, such as in the "Current Concepts" article (Farrell & Kelly, 2002, pp. 180-188) in which sections of the small intestine are referred to as "proximal" or "distal," which mean closer or farther from body center, an

example of language that places the body spatially in reference to itself rather than to the external spatial metaphors of up and down. By placing the body into spatial terms, medical language encapsulates the body in two-dimensional portrayals.

The second aspect of the metaphor of fragmentation involves rhetorical division of the flattened body. Once the body is flattened, it is subject to the same kind of dividing and fragmenting that occurs on geographical maps. Both medical discourse and practice separate body parts in the same way that boundary lines on a geological or political map divide and fragment a landscape. This occurs in both images and text. The NEJM has many images of the body, all of which depict parts of the body rather than an entire body. This fragmentation is useful and even necessary in order to depict specific ailments in the body. For instance, the "Clinical Practice" article (Kaplan, 2002, pp. 175-179) on chronic urticaria, a skin disease, offers photographs of legs and arms upon which hives have developed, making it easy for readers to identify specific patterns on the skin (Figure B8 in Appendix B). However, almost all the images in the NEJM are microscopic photographs of cells, representing fragmentation of the body at the smallest possible level. These represent a tendency of medical vision to see and portray the body through the metaphor of fragmentation to an extent that the vision of the body as a whole is lost.

The metaphor of the body as fragmented appears in microlevel photographs of cells in the body that are offered in order to discuss multiple sclerosis in an article in the NEJM. The topic of multiple sclerosis is a good example of a tendency in other issues of this journal to micro-fragment the body in regard to other topics. The article includes four sets of images (included in Appendix B as Figures B1, B2, B3, and B4) that depict



nerve cells that have been affected by multiple sclerosis. The images offer progressively more fragmented depictions of the body. One set of images, Figure B2, depicts groups of nerve cells in a larger lesion on the brain. The images in Figure B1 include photographs of individual cells depicted more closely and with descriptions of the specific characteristics visible in the cells. In Figure B3, cells are shown, with arrows pointing to characteristics on cell processes, or extensions, drawing the attention of the reader to an even smaller fragmentation of the body. Finally, Figure B4 depicts cells at such a small level of fragmentation that individual protein molecules are visible and acknowledged with arrows. When the body is depicted and discussed in terms of its increasingly smaller parts, the process of disease, and the body itself, is seen through a lens of fragmentation.

The body is also divided through the use of terminology in the NEJM. In an article in the NEJM, viewing the effects of multiple sclerosis on the brain involves having "the borders of the lesions [being] outlined on a digital image" (Chang, et al., 2002, p. 167). In the same article, sections of the brain are scanned and different areas are measured with software, thereby applying technological imaging to map out the body's territory, dividing it into visible parts. The metaphor of the body as a map extends in a discussion of brain analysis with "the axon-free subventricular zone," "the area of demyelinated axons," and lesions which "contained regions" of certain cells (Chang, et al., 2002, pp. 165-173). By portraying the body through areas and regions, medical language divides it into fragments. This kind of fragmentation occurs almost exclusively in the NEJM, as opposed to the metaphor of wholeness that is prevalent in ATHM.

Rhetorical division of the body in allopathic discourse leads to a strong physical manifestation of the metaphor of the fragmented body in medical practice. It is only in the NEJM that fragmentation of the body occurs in actuality through the discussion of practices such as surgical dissection or biopsy. In another article in the NEJM regarding celiac sprue, a disorder of the gastrointestinal system, "examination of a biopsy specimen of the small intestine remains the gold standard" (Farrell & Kelly, 2002, p. 182) for diagnosis. A more vivid example exists in one of the articles regarding multiple sclerosis:

The brains from 10 deceased patients with multiple sclerosis were investigated. Six brains were obtained from patients who had been followed at the Cleveland Clinic Foundation. These brains were sliced (1 cm thick) and fixed in 4 percent paraformaldehyde. Lesions were removed, cryoprotected, and sectioned ... on a freezing-sliding microtome. Fresh-frozen brain slices from four other deceased patients with multiple sclerosis were obtained ... and were simultaneously thawed and fixed in 4 percent paraformaldehyde and processed as described above.

(Chang, et al., 2002, p. 166)

In this example, which is somewhat typical of physical studies presented throughout the issues of the NEJM, the body is actually fragmented physically. The brain is removed from the body, creating an initial level of fragmentation that goes on to be further fragmented into slices and, eventually through the use of microscopic envisioning, cells. When the body is fragmented both rhetorically and in physical practice, it is seen through the metaphor of fragments rather than as a whole. As the body is fragmented, it is seemingly made more visible and definable to medical practitioners, reinforcing the

value of sight that is integral to scientific discovery of the body, and connecting this metaphor to the previous metaphor of the body as dominated.

The final way that fragmentation appears in the texts is through personification of body fragments. When body fragments are personified, they become the actors in the stories of disease and healing. This level of fragmentation reduces the ability of medicine to address the actual interactions of the whole patient in the context of his or her human life, and eliminates the possibility of seeing and treating patients through contextualizing their physical bodies in the social, emotional, and spiritual aspects of their processes of disease and healing. At the cellular level, it is evident in the focus on microscopy throughout the NEJM. A micro-level discussion of multiple sclerosis occurs around axons, a type of nerve cell, which are said to either "survive" the initial processes of the disease, such as when "early demyelination itself may create an environment that is not conducive to long-term axonal survival" (Brex, et al., 2002, p. 163), or to become "vulnerable to other types of damage; gradually, they may become dysfunctional and die" (Paty & Arnold, 2002, p. 199). In this example, "axonal death is permanent" (p. 199), and results in disability for the body as a whole. In a portrayal of microparticles of the body in terms of a life and death drama at a microlevel, the body as a whole is represented through a metaphor of microbodies whose dramatized living and dying is primary in the text. This representation deprioritizes the actual human drama of the disease and healing process, including interactions between patient and physician, and the social contexts of patients' lives. This dramatization of cellular life also occurs when "premyelinating oligodendrocytes [cells] have a limited life span (approximately three days) and either myelinate axons or die by programmed cell death" (Chang, et al., 2002,

p. 165), and in a later discussion of the "life span of the cells" (Chang, et al., 2002, pp. 171, 172) involved in multiple sclerosis. While cells do, in reality, live and die, their centrality in the text decontextualizes, or isolates, them from the whole of the patient as a human being, reinforcing the metaphor of the body as fragmented.

Personification of body fragments supports the metaphor of the body as passive when body fragments are portrayed through performance-based depictions. Performance of microfragments within the body aims the medical gaze at the actions of the body's parts rather than of the body as a whole. It is evident when "antibodies activate basophils [a type of cell] and mast cells to release histamine" (Kaplan, 2002, p. 175), again making body fragments the actors and abdicating medical focus from the overall body. This particular version of fragmentation supports the value of the body as being a passive field upon and within which action occurs. Interactions between cells are framed in terms similar to interactions between people. In the NEJM:

The orientation of processes of premyelinating oligodendrocytes suggests that they physically associate with demyelinated axons. This possibility was investigated by determining the three-dimensional relation between processes of premyelinating oligodendrocytes and axons in confocal images of sections immunostained with proteolipid proteins and neurofilament antibodies. (Chang, et al., 2002, p. 168)

Here, the body is fragmented both rhetorically when cells are said to physically associate with one another, and physically when sections of the body are placed under study. The "physical association" of cells also reinforces the focus of the medical gaze on the physicality of the body. This article also includes in the abstract a reference to

“understanding the cellular interactions between premyelinating oligodendrocytes, axons, and the microenvironment of lesions of multiple sclerosis” (p. 165). Cells are said to interact often in the NEJM, in articles based on any physical representation of the body through fragmenting it.

The metaphor of the body as fragmented is perhaps the most powerfully-evident metaphor that appeared in this analysis. Fragmentation occurs repetitively and forcefully throughout the journal, both at a foundational and a functional level of knowing. Most discussions of the body rely on fragmentation in terms of the way the body is seen at the most fundamental level. The metaphor of fragmentation arises from passivity and domination, and it informs these and other metaphors in the journal, making it central to allopathic ways of knowing.

### **Bringing the Body to Order: Structuring and Mechanizing**

The value of order in the body has begun to surface through the need to act upon, to invade and dominate, and to fragment the body in previous metaphors. This value becomes a metaphor itself as the body is depicted in the NEJM as something that can be or should be inherently ordered. The fragmentation that has been established and manipulated through previous metaphors is used to create new visions of wholeness defined and established by medicine. It is almost as if the body must be taken apart, reordered, then put back together by medical practice in order for healing to take place. In this section, I demonstrate how the two sub-metaphors of structuring and mechanizing the body support the value of finding order in the body. In addition, the metaphors of the body as structurally ordered and mechanized extend the focus of medical discourse on the

physicality of the body by portraying the body as an object that can or cannot be fixed by medicine, rather than as a being that goes through a healing process. This objectification further establishes the dominant position of medicine over the body, which differs potently from the relationship of a healing partnership between patients and physicians portrayed in the CAM discourse.

## STRUCTURE

One primary way that the metaphor of the body as ordered arises in the texts is through a tendency of medical discourse to focus on the structure of the body. In this analysis, the definition of structure includes a privileging of the body's physical forms in discussions of disease and healing, particularly in the reordering of physical forms as central to medical practice. The body is presented through a metaphor of structure both as a result of as well as in collaboration with the metaphor of order. In this section I will demonstrate how the body is structured through words and images in the texts. First, the terms “order” and “disorder” are used directly in reference to the body, providing the basis for structural order. Second, structural terminology is used to describe the body, making it seem ordered in a way that is supported by the third version of the metaphor of the structured body – the use of images that emphasize a structural view of the body.

Ordering and reordering the body are a primary way that healing is portrayed in medical discourse. There is one term that is used so often in medical discourse that the metaphor it implies is easily overlooked. The word is disorder. It is used to describe symptoms as well as diseases and syndromes that occur in the body. Disorder is used when health is disrupted in the body. Implied in its use is that a healthy body is an

orderly body and that ill health is a disruption of order. The word, disorder, is used often in the NEJM. In a research article it appears when "early drug use among 11-year-old low-birth-weight children ... was associated with attention-deficit-hyperactivity disorder" (Hack, et al., 2002, p. 156). It is also present in a clinical article speculating that the case at hand may be explained by an "autoimmune disorder" (Kaplan, 2002, p. 175), or the manifestation of an "anxiety disorder" (p. 175), or a "connective-tissue disorder" (p. 175). The fact that disorder in these examples is part of the name for a condition strengthens its potency in the discourse because it may be used more often and as a defining term for the human condition. Disorder appears most often in the articles that are based on a diagnostic procedure, such as the "Clinical Practice" and "Case Records" sections of the NEJM.

In the above example, from the "Clinical Practice" section of the NEJM, "chronic urticaria and angioedema are manifestations of an underlying connective-tissue disorder" (Kaplan, 2002, p. 175). The use of the word, underlying, is literal in its reference to the physical structure of the skin. In this instance, the disorder of the body is part of a hidden chaos underlying what is evident on the surface. This use of disorder reiterates the role of medical practice to reveal what is hidden as well as to restore or establish order within the body.

The metaphor of the body as ordered is reinforced when the body is assumed to be simple. This assumption is revealed in the use of the term, complications, to describe ill health. In the NEJM, patients are said to have "died from complications of severe multiple sclerosis" (Brex, 2002, p. 159). This example references complications that disrupt the assumed order of disease progression and bodily processes. Regardless of

whether the body is in a state of health or disease, the scientific gaze, by mapping and monitoring the body, creates a definition of order or predictability in bodily processes, reinforcing the assumption that the body is inherently ordered.

The definition of the body as ordered and predictable is also evident in the many descriptions of disease through a progression of stages. This occurs often in the NEJM, such as when “the opportunity for effective treatment may be greatest if patients are treated at the very earliest stages” (Paty & Arnold, 2002, p. 200) of multiple sclerosis. In another article on multiple sclerosis, the disease is defined through the stages of being clinically probable or definite when “clinically definite multiple sclerosis developed in 48 of 71 patients (68 percent) and probable multiple sclerosis in a further 5 (7 percent)” (Brex, et al., 2002, p. 159). When the body is portrayed as moving through definable and predictable stages, the metaphor of the body as ordered is reinforced.

The second way that the metaphor of order arises is in the use of structural terms as metaphorical for the body. An important element in the metaphor of the body as structurally ordered is the metaphor of the body as fragmented. The first examples of structural terms will be used to describe the relationship between fragmentation and structuring of the body, a relationship that will be implicit to later examples of the body as structured. The process of fragmenting the body allows for a focus on body structures. Again we return to the NEJM for the examples of how these two metaphors intersect. We can see the integration of these two metaphors in an article on a patient with vision loss:

Each eye had a cataractous lens, cloudy aqueous humor and vitreous humor, nodules in the iris, and a diffusely thickened ciliary body and choroid (Fig. 2).



Microscopical examination showed nodules of uveal melanocytes in the stroma of the iris (Fig. 3). The trabecular meshwork, which normally serves as the outflow path for aqueous humor, was filled with proliferating melanocytes, a finding that accounts for the glaucoma. Similar melanocytes filled the ciliary body and the choroid (Fig. 4 and 5). These spindle-shaped, closely packed melanocytes replaced the ciliary muscle and the choroidal vasculature. There was a serous detachment of the retina, with cystoid macular edema and degeneration of the photoreceptor layer of the retina. These findings are diagnostic of bilateral, diffuse uveal melanocytic proliferation. (Case Records, 2002, p. 193-194)

Structural descriptions of body fragments dominate this discussion. The fragmented body appears when the eye is broken into its parts, including the lens, humors, nodules of the iris, ciliary body, and choroid. These are then depicted structurally in terms of a trabecular meshwork and outflow path, as well as the mechanical detachment of the retina and degeneration of a layer of the retina. In this instance, fragmentation of the body is integral to the structural order of the body. The figures mentioned in the quote are available in Appendix B, listed as Figures B10 and B11. These figures demonstrate the search for order through structure in the body. Figure 2 (B10) is a photograph of the preserved eye with letters that label its structural components. Like the text, these labels define the body through structure, and provide an ordered vision of the body in an effort to make sense of the disorder inherent in vision loss.

The search for structure in the body and the effort to create order in the body are intricately tied within medical healing practices and discourse. This is particularly

evident in the NEJM. Structure as a form of imposing order on the body appears not only in images, but in textual discourse as well. The body is represented in structural terms often in the NEJM. Respiratory assistance given to low-birth-weight infants is referred to as "assisted ventilation" (Hack, et al., 2002, p. 150), focusing on the structural aspect of respiration. At a more microscopic level in the NEJM, "Multiple sclerosis is an inflammatory disease of the central nervous system that destroys myelin, the insulation the surrounds axons" (Chang, et al., 2002, p. 165), a definition of disease that is based on the structural state of cells. Also in this article, healing is evident in "redistribution of sodium channels on demyelinated axons" (p. 165), which defines healing through structural depictions of cells as well. Another article also describes a "breakdown of the blood-brain barrier" (Brex, et al., 2002, p. 162), as a part of the disease, reinforcing the metaphor of the body as structured in order to describe disease. These descriptions refer to the body in structural terms and reinforce the metaphor of order for the body.

The importance of structural ordering of the body is also apparent in the NEJM in an article that provides an educative overview of celiac sprue, a disease involving the lining of the gastrointestinal tract. In describing the process of diagnostic biopsy, the text refers to "architectural changes" and "architectural distortion" (Farrell & Kelly, 2002, p. 182) of the gastrointestinal tract by this disease, providing specific reference to the importance of structure in diagnosis. Further, signs of disease are described structurally, such as "absent, flattened, or scalloped duodenal folds" (p. 182) in the lining of the small intestine. By depicting the process of disease through structural terms, medical discourse imposes a sense of order and simplicity upon the body and the processes of disease and healing.

The third way that structure is imposed on the body is through the use of images as part of medical texts. The importance of finding structural order in the body through medicine occurs strongly in the use of images that describe and define the body's structures. This is particularly apparent in the images that abound in the text of the NEJM. A set of images from an article regarding multiple sclerosis offers strong examples of the importance of structure in the allopathic regard for the body. Figure B1 in Appendix B, taken from this article (Chang, et al., 2002, p.168), includes four images of microscopic nerve cells. Beyond the fragmentation of these images discussed in the last chapter, these images portray the importance of seeing structure in the body. Descriptions of evidence for multiple sclerosis in the primary issue of the NEJM are firmly based on the visible changes in structure of each cell in the progression of images. Other issues of the NEJM show a similar focus on physical structure for other diseases and body syndromes, making it clear that the metaphor of structure is a strong component of the allopathic conception of the body.

This reliance on visible structure is even more evident in later photographs from the same article. A second set of photographs taken at the cellular level, shown in Appendix B as Figure B2 (Chang, et al., 2002, p. 170), include arrows in the image to highlight structural changes. Then in the following two sets of photographs (Figures B3 and B4), structural features and changes are highlighted with both arrows and color differentiation between forms in the image. The use of arrows and color reveal the value placed on structural evidence in allopathic medicine.

The metaphor of the body as structured is not portrayed as forcefully as many of the other metaphors in the NEJM. However, this metaphor recurs often in that it is

evident in almost every reference to the body in the journal, making it foundational to the way the body is conceived in allopathic ways of knowing.

## MECHANIZATION

Some of the most fundamental knowledge in medical practice is divided into the two categories of anatomy and physiology. A simple distinction between the two is that anatomy includes the study of physical structures in the body, while physiology includes the study of how these structures work to perform bodily processes. This distinction parallels the ways metaphors for the body appear in regard to structure and mechanization. Physiological processes are often presented through the metaphor of mechanization. Both structure and mechanization are, above all, a form of imposing order on a body that is inherently nonlinear and not strictly ordered. As an extension of the metaphor of structure, the definition of mechanization in this context includes a privileging of portrayals of the body as a function of linear, organized, physical actions. In this section, I will outline the metaphor of mechanization as it appears in three ways. First, the layout of research articles provides a mechanistic framing for the body. Second, mechanical terminology is used for the body, and, third, images used in the journals offer a mechanical view of the body.

First the layout of research and science-based articles in both journals offers a format that reveals a mechanistic regard for the body that is ordered in stages, similar to the stages of disease progression outlined above. With little variation, each research article in the NEJM (Hack, et al., 2002; Brex, et al., 2002; Chang, et al., 2002) is formatted in four steps -- a background description, a methods section, results, and a

concluding discussion. Inherent in these steps is the suggestion that the body presents a problem, outlined in the background description, to which a method may be applied for understanding. This generalized methodology itself is only applicable to a generalized body, reinforcing this overarching metaphor for the body. In fact, human bodies are particularly generalized in this research format by being referred to as "subjects" or "controls" throughout all the research articles (Hack, et al., 2002; Brex, et al., 2002; Chang, et al., 2002) in the NEJM. In addition, the number of participants in each study can be so high, numbering from ten to two hundred forty-two in the primary issue and into the thousands in some of the secondary texts, that it becomes difficult to imagine how any one of the patients bodies behaved or were affected in the study.

The steps in the scientific layout of research seek a solution to the disease or, more specifically, to the perhaps more unsettling problem of scientific ignorance regarding the body problem. Once the method is applied, the results and discussion sections provide a forum in which knowledge gained about the body is put into order and assessed. The scientific process outlined here relies heavily on a methodical structure. When the body is contained in this structure, it is presented as a mechanism to which the proper methods may be applied to create a mechanical solution. When the body is presented in a methodical structure, its physical processes are highlighted, reinforcing the isolation of the physical aspects of human beings and de-contextualizing the non-mechanical elements of patients.

The second way that the metaphor of the mechanized body appears in the texts is through the use of mechanical terminology to describe and define the body. Mechanization of the body is clearly evident in the use of the word "mechanism" to

describe body processes. This occurs in both the NEJM and in ATHM. I discuss the allopathic text here, and the CAM text in a later chapter. The two examples of the use of this word in the NEJM occur in the articles regarding multiple sclerosis. One article states that "little is known about the molecular mechanisms responsible for the initiation of myelination" (Chang, et al., 2002, p. 172), while another states that "a likely mechanism of progressive disability is axonal loss" (Brex, et al., 2002, p. 162). By depicting body processes as mechanical, medical language depicts the body in a metaphor of a machine. This metaphor implies that the body is linear and mechanically structured by centralizing the physical processes of the body and portraying them as mechanical. Further, this metaphor eliminates the possibility that the body has an innate intelligence or wisdom, a component of the CAM depictions of the body, by objectifying it through mechanization.

The third form of the metaphor of the mechanized body appears in images. The NEJM provides one image in particular that reveals the importance of mechanization of the body. It involves a full-page drawing of the microscopic lining of the gastrointestinal tract that reveals the metaphor of mechanization in two ways. It simplifies the body's functions, and it depicts body functions as linear and mechanical. This image is included in Appendix B as Figure B9 (Kaplan, 2002, p. 176).

First, this image simplifies the structure and function of the body. The drawing depicts a gently curved line of even, rectangular cells beneath which larger cells are drawn as distinct circular forms. These cells are distinguishable by color and shape, as well as by labels with arrows. Larger arrows and linking mechanisms drawn between the cells depict the process of the disease at the cellular level. A similar linking mechanism

is drawn on one of the lining cells to depict an anomaly in the gastrointestinal lining due to disease. The drawing of the linking mechanism between the inner cells is enlarged in a separate box to show detail. This enlargement is particularly telling of the importance of simplified structure and mechanization in creating the metaphor of the ordered body.

Second, this image depicts the body's functions as linear and orderly. In this image, there are two links drawn as square-shaped, color-coded boxes with openings for a drop-shaped cell that fits precisely within the links. Each of these links is perfectly symmetrical, making the sense of order and simplicity especially evident. The two links depict a process. The first link shows one side of the link above the other with the drop-shaped cell between them, each piece being slightly separate from the other. The second picture shows the links and drop-shape together, as if the process of disease had moved the two links linearly up and down to meet, much like the parts in a machine move in linear and precise motion. This kind of mechanized motion, of course, is not how the body actually moves. In this medical text, however, the parts and the process are mechanized in order to make the process clear in the minds of readers.

This image is useful for medical practice in that it simplifies and clearly demonstrates a process that is complex, microscopic, and hidden from normal view. However, it is through this simplification of structure and mechanical process that medical discourse takes a meaningful step away from the actuality of the body and toward the abstraction of metaphor. The metaphor of mechanization reveals the value of order in the body that is held by and informs the work of medical practitioners, in this case, allopathic practitioners.

The metaphor of the body as ordered appears through two primary sub-metaphors. In the metaphor of the body as structured, there are examples from both journals, as there are for the metaphor of the body as mechanized. Each of these metaphors is depicted strongly in the NEJM by way of the use of images to describe the body. However, they are not represented as forcefully in the journal as are other allopathic metaphors. Nevertheless, the metaphors of the body as structured and mechanized inform almost every reference to the body in the journal, making them foundational to the ways the body is regarded in allopathic medicine. These metaphors help to reinforce the allopathic way of knowing the body as a generalized, physical entity by depicting the body as physically structured and mechanical.

### **Body Management: Control, Conflict, Regulation**

The portrayal of the body as a generalized, fragmented, physical object in allopathic discourse has developed so far through metaphors that place the body in a position of subordination to the gaze of medical institutions. I have outlined the ways that metaphor is used to create a passive landscape of the body -- a landscape that has been invaded and dominated, then laid flat and fragmented by the medical gaze. The body has then been portrayed through the metaphors of order, structure, mechanization, and normalization. These metaphors lead to three final sets of metaphors that involve a further development of the body's submission to medicine through managing and manipulating the body in an effort to exert control over the body through medicine. These are the metaphors of the body as controlled, conflicted, and regulated by medical practices. These processes are tied to Foucault's discussions of institutional power as it is



imposed through the gaze of medical practices and institutions (1963/1973, 1975/1977). In Screening the Body, Cartwright (1995) comments on the distinctly modernist approach of allopathic medicine in its focus on the temporal and spatial decomposition and reconfiguration of bodies that she defines as dynamic fields that are, according to medical institutions, in need of regulation and control. It is this effort to control and regulate the body that defines the series of metaphors in this chapter. The body is referred to in three sets of terminology, revealing three distinct metaphors -- the body as controlled, the body as conflicted, and the body as regulated by medical institutions. Woven through these metaphors is the underlying assumption that it is possible and necessary for the body to be managed by medical practice and discourse.

## CONTROLLED

The metaphor of the body as controlled appears throughout the NEJM. The definition of control in this context includes an administrative or managerial element in that the body is directed to behave in particular ways by medical discourse and practices. This is particularly different from the metaphor of domination in that the control exerted in the text is reliant on the body responding with action, rather than being rendered passive as it is in the metaphor of domination. The metaphor of the body as controlled appears in three primary ways, including the use of the term, management, to describe the body, as well as the use of terminology that depicts the body as being overseen by medical practice, and, finally, the use of institutional terminology to define the body's processes.

The first version of control of the body is never more explicit than in the use of administrative and management terms in reference to the body. The word, management, is used often in the NEJM to describe the way a body is dealt with by members of the medical institution. In an article on chronic urticaria, the author states that "there is no single right way to manage this disease" (Kaplan, 2002, p. 178). When disease is managed, the body as a location of disease, as well as the body's processes of healing are managed as well. Management is mentioned often in regard to the body and its processes. Other examples exist in articles of the NEJM, revealing its widespread inclusion in allopathic professional medical discourse. These include an editorial article in which "improv[ing] the management of chronic lung disease" (McCormick & Richardson, 2002, p. 198) is mentioned, and a book review article that offers the question, "Why should the management of atrial fibrillation [a heart condition] be considered primary prevention, whereas a prosthetic valve is designated secondary prevention?" (Furie, 2002, p. 214). When medical care is viewed as management, the body is placed under the jurisdiction of medical institutions, creating a metaphor of the body as controlled by medicine.

Through the use of the term, management, the body also becomes a passive background upon which the power of medical institutions is enacted upon disease. The term places the body in an inferior position in relation to medical practitioners and institutions, reinforcing the power of the institution over the body. In the NEJM, a patient's medical history is described as, "three years earlier, hyperthyroidism, without exophthalmos, had been diagnosed and managed with radioactive iodine" (Case Records, 2002, p. 189). Here, the disease is the subject, and the body is relegated to being the

setting or background upon which management of disease by medicine takes place. This also takes place in an article in which "new, accurate serologic tests make it easier to diagnose this disease and have led to changes in the strategies for clinical management" (Farrell & Kelly, 2002, p. 148). Here, again, medicine and disease are actors upon the passive background of the body. These examples tie the metaphor of the body as controlled through management with the metaphor of the body as passive that was established earlier in this thesis.

The metaphor of the controlled body extends from management to managerial terminology that depicts the body as being overseen by institutions of medicine. Evaluation is one form of exerting the medical gaze that specifically rests upon the ability of the institutional gaze to provide judgment. As with the term, management, evaluative language occurs most often in the NEJM. First, the body is evaluated, such as when "external examination showed no abnormalities. On slit lamp evaluation, there were dilated episcleral vessels in both eyes" (Case Records, 2002, p. 189). This example turns the process of envisioning the body, as described in the metaphor of domination in Chapter Two and apparent in "examination" in this example into a process of evaluating which involves judgment and the possibility of condemnation of the body by medicine. The gaze is exerted no longer simply in order to see the body, but to judge it for what is deemed appropriate, healthy, or regular. Evaluation and the professional judgment it implies offers an important component of the metaphor of the body as controlled by medical institutions.

Just as evaluation is engaged to determine diagnosis, it is also engaged to monitor patients as they undergo treatment, keeping the body under the gaze of the institution of

medicine throughout the healing process. It appears in the NEJM in an author's reply to an editorial letter, in which, "Hemodynamic measurements provide a more suitable way of monitoring patients at risk for variceal bleeding" (Villanueva, Minana, & Balanzo, 2002, p. 209). Monitoring the body appears in other issues of the NEJM. Evaluation and monitoring of the body offer examples of ways that sight is engaged to enact the metaphor of the controlled body in discourse.

The final way this metaphor is enacted is through the next terms, administration and institution, to describe how institutional control is exerted over the body. Treatment itself is referred to in managerial terms throughout the NEJM, reinforcing the metaphor of institutional control of the body. In one article, "the institution of an effective gluten-free diet requires extensive, repeated counseling and instruction of the patient by the physician and dietician. It also requires a motivated, label-reading patient with a high index of suspicion" (Farrell & Kelly, 2002, p. 185). In this passage, institutional control is exerted when patients are subjected to assessment in terms of eligibility for treatment. The passage above reads much like a job description in which patients are given the opportunity to be trained by and work in the service of the treatment prescribed by the medical institution, but only after being assessed and proven worthy of treatment. It mimics language used in business magazines that describe employment trends. For instance, a recent article in Business Week magazine states that instituting off-shore hiring, or "transferring ... jobs" requires "college-educated" employees who are "talented [and] innovative" ("Is Your Job," 2003). This kind of phrasing, like that in the above NEJM example, expresses a regard for employees as commodities, especially in the ways it lists qualifications. As patients are assessed for qualifications, such as being

"motivated" and "label-reading," in order to be able to take part in their own treatment, they are subjected to an advanced form of evaluation and control by medical institutions. Although evaluation, treatment, and monitoring are important steps toward providing a diagnosis and offering therapeutic assistance to patients, when they are depicted through managerial language, it is important to recognize and to question the ways that power is exerted over the body in this depiction of healing.

The metaphor of control appears somewhat diffusely in the journal in light of the forcefulness of other allopathic metaphors. Rather than being central to allopathic ways of knowing, it seems to be a branch of how these ways of knowing are exerted in practice, arising from the more foundational elements of passivity, domination, fragmentation, and structural and mechanical order. However, the metaphor of control is present throughout the journal and represents a vital component of the disciplinary force of allopathic discourse and practice.

## CONFLICTED

The metaphor of the body as conflicted arises directly from the metaphor of the body as controlled. Once the body is seen through a lens of institutional control, any uncontrolled event, such as illness, creates a conflict in the body. Conflict in this context is defined as a portrayal of the body through opposition rather than cooperation, emphasizing an inherent violence in treating the body through defeating disease and disorder. Conflict is portrayed in medical discourse between the body and disease as the process of healing, and between medicine and disease, making the body a passive background upon which conflict takes place. I will outline the ways the metaphor of

conflict arises in the texts. First, illness is depicted as an attack on the body. Second, medical practice and healing are depicted through the language of counterattack. Finally, as conflict unfolds within the body, the value of violence emerges in terms that describe conflict as a metaphor for the body. In the entire metaphor of conflict, the body is placed in a context of powerlessness in regard to medical practice and disease through the language of conflict.

The first step in the development of the conflict metaphor is apparent when the ailing body is described through the language of attack. This occurs often in the NEJM. It is most often presented when ill health is regarded as being due to a challenge to the body. For instance, in the NEJM, celiac sprue, a gastrointestinal disorder, is described as being due to “gluten challenge” (Farrell & Kelly, 2002, p. 185), meaning that the body is challenged by gluten, a component of wheat. When a stimulus such as gluten is presented as a challenge, it is suggested to be a threat to which the body must respond to with defense, creating an initiation of conflict. The body is also seen as being under attack by disease when, in a description of multiple sclerosis in the NEJM:

Axons are damaged by bouts of autoimmune inflammation, the target of which seems to be myelin or the oligodendrocytes [cells] that form myelin. In addition, chronically demyelinated axons may become structurally and metabolically abnormal and vulnerable to other types of damage; gradually, they may become dysfunctional and die. (Paty & Arnold, 2002, p. 199)

Here, the body’s cells are targeted and damaged by disease, making disease an attacker of the body. In addition, this phrasing portrays the body as victimized and vulnerable, implying that it must be protected by medical practice. This also occurs in

the NEJM when, “The risks of physical handicap, borderline IQ, and poor academic performance are certainly increased for very-low-birth-weight infants, and this study suggest that they do not ‘outgrow’ their vulnerability” (McCormick & Richardson, 2002, p. 198). When the body is portrayed as being vulnerable to attack by disease or disorder, it is placed in the metaphor of conflict.

The second level of the metaphor of conflict is more developed in the NEJM. It occurs when medical practice is portrayed as a metaphorical counterattack. The counterattack launched through medical practice is far more strongly established in general, and particularly in the NEJM. The counterattack against disease is portrayed to be launched by both medicine and the body itself. One sign of attack occurs in the NEJM when the body is said to attack ingested gluten, a component of wheat. In one article, “celiac sprue results from an inappropriate T-cell-mediated response against ingested gluten in genetically predisposed people” (Farrell & Kelly, 2002, p.180). Here, the process of disease is explained as the body’s response “against” gluten, implying a conflict between the two parties of the body and gluten. This explanation for disorder involves both the first step in the conflict metaphor, the implied attack upon the body, as well as the counterattack of the body “against” an invasive force. This language of conflict to describe the disease is extended in the same article when, “the enzyme tissue transglutaminase is one of the targets of the autoimmune response in celiac sprue” (p. 180). When autoimmune response is framed as the body targeting its own tissue, conflict is written into the story of how the body works. The use of “target” provides a framework through which to see treatment as a counterattack when, again in this article, “a single tissue transglutaminase-modified peptide ... may be a target for antigen-specific

peptide therapy” (p. 180). When medical treatment is said to target areas of the body, the language of conflict (as well as the value of violence which I will elaborate later in this section) is engaged.

This metaphor of more fully developed in the NEJM in a preview article on low-birth-weight-infants in which:

Undesirable changes in microbial flora and patterns of antibiotic resistance in the newborn nursery may be an unintended consequence that ultimately limits the benefit of this strategy. Although the results of primary and secondary intervention strategies have been disappointing, some interventions have been effective. Intrapartum antibiotic treatment as prophylaxis against neonatal group B streptococcal infection has effectively reduced the incidence of this potentially devastating complication along women in premature labor. (Greene, 2002, p. 147)

Here, microbial flora are framed as a threat to the body with the use of conflict-based terminology. The terms, intervention and strategy, both of which are common in the NEJM and are repeated within this example, are rooted in an assumption that the body is engaged in conflict against disease. Interventions and strategies themselves are engaged here in order to identify and eliminate a supposed enemy. The metaphor of conflict is engaged in response to microbial flora that are perceived as a threat to the body, and that in turn provide resistance to the counterattack of medical treatment.

The term, strategy, is used in the above example and extensively throughout the NEJM. It almost exclusively describes a treatment or combination of treatments used by physicians to heal the body. In a research article on multiple sclerosis, the abstract includes the term in its beginning and its end, emphasizing the importance of using a



strategic approach in allopathic medical practice. The term also reinforces the metaphorical conflict between disease and medicine. The abstract begins with:

Multiple sclerosis is an inflammatory disease of the central nervous system that destroys myelin, oligodendrocytes, and axons. Since most of the lesions of multiple sclerosis are not remyelinated, enhancement of remyelination is a possible therapeutic strategy that could perhaps be achieved with the transplantation of oligodendrocyte-producing cells into the lesions. (Chang, et al., 2002, p. 165)

The abstract concludes with, “Understanding the cellular interactions between premyelinating oligodendrocytes, axons, and the microenvironment of lesions of multiple sclerosis may lead to effective strategies for enhancing remyelination” (p. 165). By strategizing treatments instead of coordinating or utilizing them, authors in the journal reinforce the framework of a war metaphor in which disease or disorder is the enemy that must be fought by medical institutions.

Strategies are elaborated in various parts of the NEJM using terminology that reinforces the metaphor of conflict imposed on the body by medical discourse, and, more specifically, the workings of the counterattack of medicine on disease and disorder. In the NEJM, strategy is used again when, “to develop strategies for successful remyelination, one needs to identify why remyelination fails” (Chang, et al., 2002, p. 170). And again, “this provides an extended window of opportunity to deliver remyelinating therapeutic agents that target premyelinating oligodendrocytes, the microenvironment of chronic lesions” (p. 170). Here, the strategy of “targeting” the enemy of disease with “therapeutic agents” is outlined, providing terms that frame

disease and medicine as conflicting parties. This depiction reinforces the passivity of the body and minimizes the role of the patient in the healing process, further isolating the physicality of the body from other aspects of the lives of patients.

Another example of strategic operations in the conflict between medicine and disease arises when, “there are many patients with chronic urticaria and angioedema who have little response to ... leukotriene-receptor blockade” (Kaplan, 2002, p. 177), which portrays that strategy of creating a fortress against the attack of the body’s own immune system. This specific use of blockade creates a structural image of a battle weapon. The conflict between medicine and disease or disorder is evident throughout the NEJM.

I have described the metaphor of conflict as it arises when disease is portrayed as attacking the body, and healing as a counterattack by medicine or the body. This process of metaphorical conflict leads to the final aspect in this section – the value of violence inherent in the metaphor of conflict. When the language of attack and defense is used to describe the disease process, an element of violence is introduced to the discourse of medical healing. Although destruction and regeneration are natural elements of bodily processes, when disease is described in violent terms, a discursive framework is developed within which treatment can be portrayed in violent terms.

Violent terminology is used occasionally in medical discourse to describe treatment, reinforcing the potency of the metaphor of conflict. There are several instances of violent terminology used in this way in the primary issue of the NEJM. In an editorial on low-birth-weight-infants, “The chances of survival, given aggressive intensive care, are rising every year” (McCormick & Richardson, 2002, p. 198). Here, the use of “aggressive” to describe care offers a paradox that reveals the potency of the

metaphor of the body as conflicted. When treatment is framed through aggression, the value of violence is revealed in the text. This portrayal of the body as conflicted places the body as being subordinate to the “aggressive” force of medical institutional treatment.

Another instance of the value of violence appearing in regard to treatment in the NEJM is in the article on celiac sprue in which “patients with hyposplenism should receive prophylactic antibiotics before undergoing invasive manipulations” (Farrell & Kelly, 2002, p. 186). Although this passage directs reader to avoid “invasive manipulations,” it reinforces the role of such invasions as legitimate medical practices. By defining medical therapy as an invasive manipulation that must be undergone by patients, the discourse extends the earlier metaphor of the body as invaded to portray invasion with an element of suffering. Patients are said to “undergo” surgery and other allopathic therapies often in both journals. This description of allopathic practice incorporates and reiterates the existence of violence perceived to be necessary for medical treatment.

When the body is portrayed through the metaphor of conflict, it is subjected to a battle that is defined by and, for the most part, fought by medical institutions. This discourse of conflict relies upon the previously established view of the body as passive, fragmented, and isolated from non-physical aspects of each individual patient. The interplay in the discourse of conflict of the body being at once a victim, the enemy itself, and the field upon which battles take place reveals a certain ambiguity about how it should be treated. At times, the body is protected by medical institutions; at other times, it is attacked by those institutions.

The metaphor of the body as conflicted is powerfully and repetitively represented throughout the NEJM. This metaphor, like the metaphor of fragmentation, seems to exist as both a foundational and a functional aspect of allopathic ways of knowing. Because it recurs often in the journal, it provides a foundation for other aspects of medical discourse, and because it is so strongly reflected in practice, it serves to define the functional branch of medical discourse.

## REGULATED

The metaphor of the body as regulated reinforces the metaphors of the body as controlled and the body as conflicted. Regulation, in this analysis, exists when the body is portrayed through a definition of regularity that is assigned by allopathic medical institutions, and when this regularity is enforced through discourse and practices. This occurs as the body is defined through numerical measurements and revalued by medicine according to a paradigm of winning and losing. These processes of regulation subordinate the body to the controlling force of medical practice, and they serve to further abstract individual human bodies into a singular, generalized, and measured form. I will describe the metaphor of regulation as it appears in the texts in three parts. First, regulation occurs when the state of the body is defined through measurements. Once the parameters of regularity are measured and established, illness and health may be defined through a framework of loss and gain, creating the second aspect of this metaphor, which is the aspect of imposing a goal of regulation on the body. In this second process of referring to the body by scoring it, the body is valued and devalued and becomes part of a risk calculation process. Finally, once regularity has been defined and aimed for by

medicine, the process of predicting changes in the body is the third aspect of the metaphor of the body as regulated. Throughout this metaphor, the body is depicted in different roles. It is at times a field upon which the games take place, recalling the passivity of the body revealed in other metaphors. It also remains fragmented as it is manipulated and controlled by medical practitioners. Perhaps most significantly, when the generalized body is measured numerically, scored, and predicted, it is further removed from the reality of any one patient's body. Also, regulation of the body through measurement of its physical aspects further reinforces the allopathic regard to the body as being solely physical, and diminishes a regard for the whole human being in the practices of medicine.

The first step in framing the metaphor of the body as regulated is the depiction of the body as measurable. This occurs primarily through mathematical measurements and secondarily through qualitative measurements of normality. When the state of the body and bodily changes are measured through mathematical calculation, a state of regularity is assumed to exist from which such measurements show deviation. The language of calculation imposes a model of regularity upon a body that is intrinsically chaotic and nonlinear. The metaphor of the body as regulated and predictable provides a contrast with the metaphor of the body as a mystery. Here we see the development of medical practice on the body unfolding. Through the lens of mathematical calculation, health is defined as regularity, and healing involves an effort by physicians to abolish irregularities and anomalies in the body.

When the body is seen through measurements, it is divided into numbers that can be manipulated by medical practice to regulate the body. This division is similar to the

process of fragmenting the body I outlined previously, however, it involves dividing the body into abstract terms, lending an important level of abstraction to this metaphor. This additional abstraction is accomplished when the body is presented through numbers in addition to words. Many of the examples of measurement occur in research articles in the NEJM. An article in the NEJM describes the body through the framework of measurement when “the results of a complete blood count and urinalysis are typically normal, as are the values for blood chemical variables usually included in laboratory panels” (Kaplan, 2002, p. 176). Here, the body is measured according to a numerical definition of normality, making regularity a metaphor defined through measurement. Similarly, in the same article, chronic urticaria “is diagnosed when hives occur on a regular basis for more than six weeks. This interval is sufficient to rule out most identifiable causes of acute urticaria” (p. 175). Again, the definition of regularity resides in a measurement, in this case an interval of time, that defines the generalized human body. Finally in this article, “In a patient ..., laboratory testing is not indicated, other than measurement of serum thyrotropin levels and anti-thyroid antibodies to rule out associated thyroid disease. These are the only tests ... for the patient described in the vignette” (p. 178). When the body is viewed through measurements, it is framed as having a regular state by which variations or irregularities reveal illness.

In research on multiple sclerosis in the NEJM, a view of the body is mainly accomplished through the use of numerical data. For example, the “Statistical Analysis” section of a research article includes:

Comparisons between groups were performed with the use of chi-square or Mann-Whitney tests as appropriate. The Spearman rank-correlation coefficient was used

to evaluate the relation between the volumes and numbers of lesions on MRI during follow-up and the EDSS score after 14 years. Measures included the total volume or number of lesions at a given time point and changes in volume or number between two time points. The 95 percent confidence intervals of the  $r$  value for each correlation between lesion volume and EDSS score were calculated as outlined by Altman. Similar confidence intervals were obtained with the use of the nonparametric bootstrap method. Selected pairs of correlation coefficients were compared with the use of a t-test-based method for comparing nonindependent correlations. The results of the rank correlation tests were also calculated as  $r$ , which provides a direct measure of the degree to which variability in the rank of the 14-year EDSS score is related to variability in the rank of each measure of volume on T-weighted MRI. (Brex, et al., 2002, p. 159)

The body is depicted here purely through the abstraction of numerical measurements and calculations. The body itself is lost in the statistical process and, though it is the subject, it is not directly mentioned. This kind of extreme abstraction of the body is evident in all the research articles in the NEJM. By depicting the body as a conglomeration of numbers and measurements, medical discourse creates a framework by which the body's state may be defined and regulated by medicine, further placing it in a position of subordination to the medical gaze.

Similarly, in another research article in the NEJM, multiple sclerosis researchers state, "We investigated the frequency distribution and configuration of oligodendrocytes in chronic lesions of multiple sclerosis to determine whether these factors limit remyelination" (Chang, et al., 2002, p. 165). Here, again, the body is abstracted through

measurement, particularly the measurement of body fragments. The combined abstraction of fragmentation and measurement are especially evident later in this article:

To determine the size of the demyelinated area, sections stained with proteolipid protein antibodies were scanned ...; the borders of the lesions were outlined on a digital image, and the demyelinated area was measured .... The density of premyelinating oligodendrocytes was determined in the total demyelinated area in 34 lesions, in 30 lesions enriched in premyelinating oligodendrocytes.... Areas of lesions of multiple sclerosis containing more than six premyelinating oligodendrocytes per  $0.38 \text{ mm}^2$  were calculated separately and classified as enriched in premyelinating oligodendrocytes .... Densities of premyelinating oligodendrocytes were compared by Student's t-test. The relation between the percentage of lesions with premyelinating oligodendrocytes and the duration of disease, the age of the patient at the time of death, the type of disease, and the score on the Expanded Disability Status Scale (EDSS; possible range, 0 to 10, with a higher score indicating a greater degree of disability) was determined by the Pearson correlation coefficient. (p. 167)

Here, the body is literally fragmented into demyelinated areas defined by borders, reinforcing the metaphor of the body as fragmented. The fragments are then calculated and classified, presenting the body through the metaphor of numerical regularity. Specifically, this example offers a detailed description of how regularity is calculated in the body through the use of numerical measurements and mathematical calculation. This detailed measurement and calculation of the generalized body further removes the general concept of a body from any one individual patient's body. In addition, this



calculation of the body describes it as singularly physical, further isolating the physical form of bodies from the individual components of each human being, such as the mind and spirit.

The above example introduces an additional element of measuring the body in order to frame it as regular and regulated – the element of scoring. Scoring the body appears above in the use of the EDSS to determine patients' levels of disability. When the body is scored, the process of calculation includes the assignment of value to the body by medical practice and discourse. It occurs again when the EDSS is used in another article on multiple sclerosis in the NEJM in which, “The average degree of disability of patients was mild, though the wide range included all levels of the EDSS scale. Whereas the median EDSS score of patients with clinically definite multiple sclerosis was 3.25 ...” (Brex, et al., 2002, p. 161). This particular scale is mentioned often in both research articles on multiple sclerosis, demonstrating the reliance of medical practice on assigning values in the form of scores to the body. Scoring also appears in a later article on the skin condition, chronic urticaria, in the NEJM when:

A study of 439 patients revealed that fexofenadine, at a dose of 60, 120, or 240 mg per day, was significantly more efficacious than placebo, as assessed by the mean pruritus score, the mean number of wheals per day, the mean daily symptoms score (the sum of the wheal and pruritus scores), and the degree of interference with sleep, activities of daily living, or both. (Kaplan, 2002, p. 176)

In this example the metaphorical nature of measuring and scoring the body is evident in the lack of direct reference to the body as it is assessed through scores based on two different scoring systems. Here, some aspects of normal human life, including

sleep and “activities of daily living” are taken into account, but are confined in the context of being part of an equation of health. In this example, the body is abstracted and physicalized through numerical measurements. The isolation of the physical aspect of the body occurs here when diagnosis and medical practices are based on measuring the physicality of the body.

In addition to mathematical measuring of the body, the process of measurement is apparent when the body is depicted through more qualitative measurement. The term, normal, is used to describe the body often and consistently throughout the NEJM. In the introductory abstracts for the primary issue of the journal, the word normal is used multiple times, including a description of "normal" and "abnormal" MRI readings to define cases of multiple sclerosis. The first research article in the primary issue of the NEJM is focused entirely on a condition (low-birth-weight) that is based on a deviation from normality. As a result of this, the body is defined through the metaphor of normality intensely, using the words "normal" and "abnormal" a total of thirty-two times in this eight-page article, as well as throughout the journal. For instance, “Very-low-birth-weight participants ...had a higher frequency of subnormal IQ” (Hack, et al., 2002, p. 151).

When the body is depicted as being measurable, it is subject to the implied belief that health is congruent with the value of regularity, and the perception that a healthy body is one that conforms to regulatory norms imposed by medical institutions. In an article on multiple sclerosis in the NEJM, the word "appropriate" is used in regard to cell behavior. For instance, "the environment within chronic lesions will not provide the appropriate signals for remyelination", (Chang, et al., 2002, p.172), and "transplantation

of the appropriate cell into lesions of multiple sclerosis would promote remyelination” (p. 172). Because the word, appropriate, is subjectively based on the rules and norms of an institution or culture, appropriateness here is determined by medical institutions rather than by the rules and norms established within the individual body of any one patient. This offers another way that the body is generalized and subordinated to medical institutions in the metaphor of regularity. The term, appropriate, provides a reference to the role of the physician to dictate and enact norms upon the body in order to heal it.

The body is also regulated in medical discourse when illness, or, to employ the terminology of medicine, disorder, is depicted in terms of defectiveness. Again, when medical discourse defines defectiveness, the body becomes standardized and subordinated by the medical gaze. In the NEJM, an examination of the eyes reveals that "the pupils were normally reactive, without afferent defects" (Case Records, 2002, p. 189). This example frames the body as defective and therefore subject to an abstracted definition of a standardized body. This relationship between the institution of medicine and the body is, in part, depicted as one in which the body is overpowered and subject to the normalization process exerted by the medical gaze. Further, the body is depicted as being dependent on this relationship in order to be healed.

The second aspect of the metaphor of regulation involves assigning healing goals to the body. It arises directly from the processes of measuring and scoring the body. The aspect of the goal appears in two primary forms – the body as a function of loss and gain, and as a function of winning and losing. The rhetoric of loss and gain frames the body in a metaphor of regulation in that it delineates loss and gain from an assumed regulated state of health.

The dualism of loss and gain as a framework for the body is revealed when deficits are found in the body, such as in an editorial in the NEJM in which treatment is said “to affect the incidence and severity of other cognitive and behavioral deficits associated with neonatal complications” (McCormick & Richardson, 2002, p. 197).

The framing of loss and gain in the body develops further in the NEJM in a research article on multiple sclerosis in which the disease is depicted through and defined by loss of cells. Here, “a likely mechanism of progressive disability is axonal loss, which can be extensive in chronic lesions” (Brex, et al., 2002, p. 162), and “axonal loss is more abundant in disabled patients with a progressive course” (p. 162). Also, “widespread axonal loss will diminish the amount of axonal reserve, and a threshold may be reached at an early point when continuing axonal loss ... begins to manifest as disability” (p. 162). In these examples, disease is defined through the lens of loss and gain, reinforcing the framing of the body through calculation and the metaphor of regulation. When the body is seen through the dualism of loss and gain, health can be seen as a function of minimizing losses, making it possible for medicine to impose goals on the body. Goals established by medical institutions serve to regulate the body by defining success and establishing expectations for the body.

Once the body is framed in terms of loss and gain, goals can be established for the body, and the rhetoric of winning and losing in regard to those goals becomes apparent in the texts. Goals are mentioned often and directly in the NEJM. Treatment is often framed in terms of goal-setting for the body. Treatment for chronic urticaria in an article in this journal is stated as, “the goal [of treatment] is to maximize function (e.g., the patient’s ability to work or attend school) and minimize the use of systemic

corticosteroids” (Kaplan, 2002, p. 178). Goals are also imposed in an editorial in which, “clearly, the optimal approach is to reduce the rate of very preterm deliveries. However, this goal has proven elusive and does not appear to be attainable by means of current antenatal interventions” (McCormick & Richardson, 2002, p. 198). Here, the goal is once again something to be attained by physicians as they strive to regulate the body. The use of goal-setting to define and guide healing practices relies on the assumption that the body’s losses can be minimized and its gains maximized through regulation of body processes by medicine.

In addition to being stated directly, goals are also implied in the NEJM, such as when “oats should be avoided in all patients with newly diagnosed celiac sprue until remission is achieved through the use of a gluten-free diet” (Farrell & Kelly, 2002, p. 185). Here, the concepts of success or failure are evident in that achievement of a goal would mean success for medical practice. It is important to note that the goals imposed by medical practice and discourse are often the same as those desired by patients.

Healing is the mutual goal in almost every case of medical practice. However, in the context of this analysis, the aspect of the goal provides an element of abstracting the body through the metaphor of regulation in a way that frames the body in a paradigm of winning and losing. This helps set up situations in which medical institutions define success for the patient and subordinate the body in ways I discuss in the next section.

The NEJM includes goals and goal-oriented language often throughout various kinds of articles.

I have reviewed the first two components of the metaphor of regulation – the measurement of the body to establish parameters of regularity, and the enforcement of

goals as a way of enacting those definitions of regularity. The third aspect of the metaphor of regulation includes the processes of predicting and preventing losses or failures in terms of bodily health. By predicting bodily responses to diseases and treatment, medical practice seeks to regulate health. This is accomplished when the duality of loss and gain is framed in terms of a cost-benefit analysis that guides treatment decisions. Potential losses in this framing are presented as risks when:

Approximately 70 percent of patients have symptomatic improvement within two weeks after starting a gluten-free diet. The speed and eventual degree of histologic improvement are unpredictable but invariably lag behind the clinical response and may not be evident on repeated biopsy for two to three months. Although a return to normal histologic findings is common in children, half of adults have only a partial resolution on biopsy. (Farrell & Kelly, 2002, p. 186)

The use of "speed" and "degree of histologic improvement" to measure the body's healing process is not unusual in medical practice. These measures, however, make it possible to depict the body as "lag[ging] behind" when it doesn't meet the expectations of the medical gaze. This example also divides patients into those who meet the "return to normal histologic findings" and those who do not, further subjecting the body to the regulatory force of the medical gaze. When the body is depicted through the metaphor of regulation, it is subjected to a measure of performance in which conformity is depicted as success and deviation is depicted as failure. In either case, it is the institution of medicine that determines the norms and standards, as well as the successes and failures, of the body in healing.

Prediction is often depicted as the primary motivation for assessing risk and performing cost-benefit analysis on the body. Prediction appears in various formats in the NEJM. In a research article, a distinction is made between cases of "probable" multiple sclerosis and "clinically definite" multiple sclerosis, such as when, "clinically probable multiple sclerosis developed in another patient" (Brex, 2002, p. 159). Here, a disease is said to develop even when it is not definite. The authority placed on the assessment of probability is such that probable disease becomes real in medical discourse.

Prediction also appears in the NEJM in a discussion of low-birth-weight infants in which, "Monitoring women for abnormal uterine contractile activity has very low predictive value for preterm delivery" (Greene, 2002, p. 146), a term that evaluates the body by its ability to be predicted.

The body is portrayed as being at risk throughout the NEJM. In an article on low-birth-weight infants an author states that "we are now able to identify women with an increased risk of preterm delivery" (Greene, 2002, p. 146), and that some "deliveries are induced because of the perception that the mother or fetus would be in jeopardy if the pregnancy were to continue" (p. 146). In another NEJM article on multiple sclerosis, "The presence of cerebral white-matter lesions ... is associated with an increased risk of multiple sclerosis" (Brex, et al., 2002, p. 158). In this journal, risk (or, in the case of the second above example, jeopardy) is used to define the status of ailing patients in many contexts and many cases, revealing a tendency of allopathic discourse to frame the body in terms of loss and gain within the metaphor of regulation.

The element of risk in the NEJM also appears in a book review when authors are said to focus on “newly identified risk factors for stroke and new therapeutic approaches” (Furie, 2002, p. 214). Risk, as an element of regulation, is calculated as part of medical practice and discourse in an effort to predict the body and bring it into the regulatory gaze of medical institutions. Once the body is established as being at risk, that risk is determined through a calculatory process that involves cost-benefit analysis. Risk calculation is mentioned often in the NEJM. For instance, in an authors’ reply to an editorial letter, physicians “would like to assess the risk-benefit ratio using a composite end point that includes bleeding” (Yusuf & Mehta, 2002, p. 207) in order to predict acute coronary syndromes in patients. Such a model, imposes the duality of loss and gain upon the body, reinforcing the idea that the body can be regulated by manipulating the metaphorical equation between the two.

Another model mentioned in this issue of the NEJM that involves regulating risk is a hazard ratio. This term is used specifically in a discussion of the use of chemoradiotherapy after surgery of gastric carcinoma which includes:

We performed an overall test for the interaction between treatment and base-line variables. An interaction would indicate that the hazard ratio for a treatment effect differs according to stratum.... Atkins also questions the use of the Cox proportional-hazards model based on unadjusted survival curves. Our formal analyses included an adjustment for stratification factors. The features of Kaplan-Meier curves alone are not sufficient to indicate whether the assumptions of the proportional-hazards model have been violated. (MacDonald, Benedetti, & Hundahl, 2002, p. 211)



By employing terminology of economic cost-benefit analysis with the use of a “hazards model,” medical discourse reveals a vision of the body as a game in which metaphorically measured points are lost or gained. In this metaphor, the body is seen as a function of a “hazards ratio,” and physicians are seen as brokers or managers of a body that remains passive as it is regulated in order to maximize health gains and minimize health deficits. Cost-benefit models are also engaged in order to assess loss and gain in the NEJM. In an article on chronic urticaria, "Long-term studies ... are needed to clarify the dose range that yields the maximal benefit with the fewest side effects" (Kaplan, 2002, p. 177), the process of cost-benefit analysis is tied to the first element of the metaphor of regulation in that loss and gain is measured through this model.

The metaphor of the body as regulated emerges in a tendency of medical institutions to categorize the body according measurements, goal-setting, and on the calculation of risk. This metaphor appears extensively throughout the NEJM, making it a foundational element of allopathic ways of knowing the body. Although it is not forcefully developed, its repeated existence in most articles in this journal make it central to allopathic discursive practices. The metaphor of regulation operates as a lens through which the body is managed and manipulated by medical establishments. Such management is an extension of the metaphor of the body as controlled, reinforcing the tendency of allopathic medical discourse to portray the body as subordinated to medical institutions and practices.

## **Chapter Four**

### **Convergence: Comparison of the Journals**

I have outlined two different ways of knowing the body that are apparent through the use of metaphors in the two journals. The CAM text, ATHM, presents the body as a whole, complex being that is contextualized by emotional and spiritual aspects of the human experience. The allopathic text, the NEJM, presents the body as being a generalized, fragmented, and physical entity that is subordinate to medical practices and institutions. These different visions of the body represent important differences in the ways the two forms of medicine regard and treat the body, implications that I discuss in the final chapter of this thesis. In this chapter, I outline an important dynamic found in the texts, which is that, while the NEJM shows no use of the CAM metaphors for the body, the articles in ATHM seem to adopt or make reference to the allopathic metaphors for the body. This discovery suggests that the CAM text is adopting some of the ways of knowing the body of allopathic medicine. This discovery is not entirely surprising given the effort of the creators of ATHM to appeal to an allopathic audience. However, the specific ways the CAM text incorporates allopathic metaphors for the body reveal the dynamics of how CAM ways of knowing the body may be replaced by and lost to the dominant ways of knowing presented by allopathic medical discourse.

Allopathic metaphors for the body appear in ATHM in three primary ways. First, they appear through similar metaphorical references to the body, though these are always evident to a far lesser degree in ATHM than in the NEJM. Second, they appear when the allopathic metaphors are used in alternative ways in the CAM text. And, third, they appear as direct references to allopathic practice itself. In this chapter, I review the allopathic metaphors in the same order that they were presented in the previous chapter

and assess the ways ATHM offers similar or alternative variations of these metaphors, as well as the ways that allopathic practices are referenced directly by CAM authors. This outline of the allopathic metaphors in ATHM points to a tendency of this journal to juxtapose CAM ways of knowing the body with an adoption of allopathic metaphors that are often contradictory to those CAM ways of knowing.

The first set of allopathic metaphors include the body as passive, dominated, and fragmented. The presence of these metaphors seems to demonstrate a gradual or minimal adoption of allopathic ways of knowing the body by CAM discourse. The second set of metaphors, the body as structurally and mechanically ordered, offers a more integrated use of allopathic metaphors. The third set of metaphors includes the body as controlled, conflicted, and regulated by medicine. These metaphors appear often to describe allopathic medicine in order to contrast it with CAM, suggesting an awareness of and resistance to allopathic ways of knowing, a resistance that climaxes in the metaphor of conflict.

#### PASSIVITY, DOMINATION, FRAGMENTATION

The three allopathic metaphors of the body as passive, the body as dominated, and the body as fragmented appear to varying degrees in ATHM. Overall, they are rarely apparent in this journal, and their appearances often seem to point to a very gradual or minimal adoption of allopathic metaphors which are continually overshadowed by CAM metaphors that contrast with the allopathic ways of knowing the body. In this section, I outline the ways that the three allopathic metaphors of passivity, domination, and fragmentation appear in ATHM.

The metaphor of the body as passive is rarely apparent in ATHM. Instead, the body is presented as active, particularly in the ways it is referred to through the metaphor of the body as self-healing. The metaphor of self-healing that is so strongly represented in ATHM implies that the body is an active participant in the healing process. When the articles in ATHM offer examples, even though they are rare, of representations of the body as passive, it is significant to note the configurations of the adoption of allopathic ways of knowing the body by CAM discourse. In addition, and perhaps more importantly, the adoption of the metaphor of the body as passive provides a contrast to the particularly CAM way of knowing the body as an active participant in the healing process. Overall, the metaphor of passivity suggests a tension between the two different ways of knowing represented by allopathic medicine and CAM. This occurs when passivity arises in the text in conjunction with a reinforcement of the body as an active, self-healing participant in the processes of disease and healing.

Portrayals of disease as the actor on the metaphorically passive body occur often in the NEJM, but they are far less prevalent in ATHM. In ATHM, one example of the passive body appears in a news article that describes studies "to determine whether diet and lifestyle changes can slow or even halt the progression of prostate cancer" ("Scientist, Surgeon," 2002, p. 26). Here, the use of the term, progression, mimics the allopathic way of portraying the body as a silent landscape upon which disease progresses. However, even with this use of the term, progression, to activate disease in place of the body, it is still the patient who would make diet and lifestyle changes, a fact that implies more action on behalf of the patient than many of the references in the NEJM.

The practice of medicine is depicted as being active upon a passive body in ATHM as well, although also to a lesser extent than in the NEJM. In an article in ATHM, the theory of homeopathy is described as being based on the idea that "a substance that causes symptoms in a healthy person can be used to treat the same symptoms in an ill person" (Jeffrey & Belcher, 2002, p. 66). By depicting the substance, or medical remedy, as causing symptoms, this phrasing implies the passivity of the body in a similar way to the NEJM. Essentially, the metaphor of the body as passive is represented rarely in ATHM. This is not surprising, given that passivity is a contrast to the CAM metaphor of the body as self-healing, but it is significant to note that the presence of this metaphor and the possibility that this CAM text is adopting the metaphor of passivity of the body from allopathic discourse.

There are few references to the body as passive in ATHM, and many references, through the metaphor of the body as self-healing, to the body as active. This difference provides an important contrast between the two ways of knowing the body presented by the two forms of discourse. There is evidence, though, that the convergence of the two forms of discourse presents a particular kind of tension in regard to passivity in the body. The final example of the passive body in ATHM brings a paradoxical message regarding the implied passivity of the body, suggesting the tension between the two ways of knowing that emerges in this journal. In the conclusion of a research article:

The protocol of this pilot study did not allow us to answer the question of which, if any, therapies were most responsible for the improvement. It is possible that none of the therapies were active and that attention and the practitioners' intent to be helpful were the active ingredients. Perhaps treatment served to activate the

patients' own self-healing response, which was the most important ingredient.

(Mehl-Madrona, 2002, p. 46)

Here, medical treatment is portrayed as being active in that it is deemed responsible for the body's reactions to it. Also, the question of whether therapies are active or whether practitioners' intents are active suggests that it is medicine that is active rather than the body. However, the question of whether medical practice activates self-healing in the body provides the paradoxical suggestion that the body is not passive at all, but active in the healing process. In this case, the metaphor of the body as passive is minimized, making the practice of medicine appear to be a catalyst for the actions of the body. This is more supportive of the active body portrayed through the metaphor of the body as self-healing. This example seems to represent the convergence of the two ways of knowing in that it acknowledges the presence of an active body within a discussion of the therapies that are administered by practitioners. This convergence suggests a certain degree of balance between actions of medicine and actions of the body in the processes of healing. Such a balance provides what may be a benefit that CAM ways of knowing might offer to the overall medical discourse that has been dominated by allopathic medicine. However, if CAM ways of knowing are subverted in an effort to appeal to allopathic readers, this potential benefit of balancing the roles of medicine and the body will be subverted as well.

The appearance of the allopathic metaphor of the body as dominated in ATHM also suggests a somewhat balanced adoption of allopathic metaphors within a discourse that is grounded in CAM ways of knowing. In the NEJM, the metaphor of the body as dominated serves to reinforce the allopathic view of the body as generalized by and

subordinate to the practices and institutions of medicine. Although the primary way the body is depicted in ATHM is as an individualized, self-healing, and sacred being, the allopathic metaphor of domination appears in one significant way, which is through the layout of scientific research. Beyond this research formatting, there are few examples of the metaphor of domination in ATHM, although there are some ways this discourse provides alternatives to dominating the body in medical practice. In this section, I describe the ways that ATHM depicts the body as a case in ways that dominate the body in a similar way to the NEJM. Next, I describe the ways that the CAM discourse utilizes the bodies of animals in a way that is similar to the allopathic text, as well as ways that are different. Overall, the metaphor of domination is not strongly represented in the CAM text, but its inclusion points to a gradual adoption of allopathic ways of subordinating the body.

The format for scientific research used in ATHM is similar to that in the NEJM in that it encases the body in the rhetorical container of a case, abstracting actual physical bodies into a generalized research body that is held and investigated by the medical gaze. The differences between the two journals in this aspect of domination involve the degree to which the body is generalized, and a rhetorical struggle to fit non-physical aspects of the whole human patient into the organization of scientific research.

The use of the term, case, to describe bodies that are being studied appears in both journals, though to a far lesser extent in ATHM than in the NEJM. It is significant to note that, although ATHM also has a "Case Reports" section, it is much more brief than the "Case Records" found in the NEJM (an average of eight pages in the NEJM and two pages in ATHM), and it does not, beyond the use of the term, case, contain the same

kinds of metaphorical references to the body I have drawn from the NEJM. This is significant in that it reduces the vision of the body as a puzzle to be solved and the connected values, such as that of seeing the body through evidence. The use of the term, case, to contain the body is apparent in an ATHM article in which "faculty emphasize integrating CAM content into existing problem-based cases and adapting standardized patients (SPs) scripts to include CAM content (SPs are actors trained to enhance medical student clinical skills in patient interviewing and physical exams)" (Sierpina, 2002, p. 94). By defining cases as problem-based and standardizing patient surrogates, this phrasing imposes expectations on the body. Resolution of the case is the goal imposed on the body in this metaphor.

Another way that ATHM utilizes the metaphor of the body as dominated is through the use of non-human animal bodies to compare with the human bodies of patients. In accordance with the tension between the two ways of knowing provided in the journal, this aspect of the metaphor appears both similarly and in contrast to the ways it appears in the NEJM, again suggesting a gradual incorporation of allopathic ways of knowing in CAM discourse. A similar use of the domination metaphor exists in an ATHM article when acupuncture "mechanisms have been identified in experimental animals" (Mehl-Madrona, 2002, p. 45-46) that mirror what occurs in humans. Also, in a research abstract, researchers "administered antioxidant vitamins to rabbits" (Shite, et al., 2002, p. 90) in order to study their effects on humans. The study of non-human animals involves the fact that their bodies are being invaded and dominated by the practice of scientific medicine. When these bodies are then compared with the bodies of human patients, the metaphor of domination is reinforced.



However, the use of non-human animal bodies does appear somewhat differently in ATHM than in allopathic discourse in that the death of experimental animals touches on the element of the sacred when "animals were then sacrificed" (Shite, et al., 2002, p. 90) for the sake of an experiment. The use of the term, sacrifice, to describe the deaths of experimental animals embeds the use of these dominated bodies into the CAM metaphor of the body as sacred. This depiction of the body as both dominated and sacred illustrates a certain tension in the convergence of CAM and allopathic ways of knowing the body that occurs in ATHM. It also suggests a possible balance between the two ways of knowing in that animal bodies are used to benefit human medicine, but the domination of these bodies is acknowledged and mitigated by the process of ritualizing the ending of nonhuman lives.

The third allopathic metaphor in this section is the metaphor of fragmentation. The metaphor of fragmentation is almost nonexistent in ATHM. This may be due to the fact that fragmentation is so central to allopathic discourse regarding the body, and is such a strong contrast to the CAM metaphor of the body as whole. In this section, I briefly review and describe the few times it appears in the CAM text in terms of how CAM discourse seems to be adopting some of the allopathic ways of knowing the body as fragmented.

The body is divided rhetorically often in the NEJM. In contrast, the body is divided in ATHM to a much lesser degree, again making the metaphor of wholeness in this journal predominant. One example of fragmentation in ATHM occurs when treatments applied to one area of the body "may affect the growth of distant tumors" (Mehl-Madrona, 2002, p. 45) in a research article of ATHM. The connection between

sites on the body is noted, although only after a division between them is established. This kind of secondary connection occurs in the NEJM as well, when ocular disease is said to occur "in association with mass lesions in remote sites (Case Records, 2002, p. 191)" on the body. In both these examples, the initial fragmentation is necessary in order for medical practice to reconnect the body. Once the body is portrayed as fragmented, through the use of "distant" or "remote" to describe body parts, CAM institutions determine how it is reconnected by defining that reconnection through medical function. Here, the metaphor of wholeness is entwined with the metaphor of fragmentation in that the body is portrayed as connected only after it is fragmented rhetorically.

In the NEJM, fragmentation is often apparent in portrayals of cells or other body fragments as being actively involved in the story of healing and disease, without contextualizing them in the overall processes of the body. There is a marked difference between the two journals in regard to microlevel or macrolevel discussion and dissection of the body. Allopathic language and practice tend to regard the body in fragments, and more minute divisions of fragments, than does the language of CAM. In fact, discussions of healing at the cellular level are never apparent without the context of overall body processes, and even then, cellular micro-fragments are rarely evident at all in this discourse. This lack of fragmentation supports the overall pattern evident in ATHM of maintaining a regard for the body as whole despite the potential to adopt the fragmentation of the dominant discourse.

## STRUCTURE AND MECHANIZATION

The two allopathic metaphors of structure and mechanization are portrayed as ways of ordering the body in the NEJM. These metaphors appear more often than other metaphors in ATHM, and seem to point to a certain degree of integration of the two ways of knowing in CAM discourse. In this section I discuss the metaphor of structure, then the metaphor of mechanization, as they appear in ATHM. The allopathic metaphor of the body as structurally ordered represents a direct contrast to several of the metaphors that are inherent to CAM discourse. Some of the ways that the body is regarded as whole, complex, and sacred present direct oppositions to order and structure, and so it is important to notice how the two different ways of knowing the body coexist in some parts of ATHM, for here is where we see more of the dynamic convergence of these two ways of knowing and the effects of the dominant discourse in the CAM text. In my review of the metaphor of the body as structured, I discuss the use of terms that describe order in the body, as well as structure in the body, as they are evident less often in ATHM than in the allopathic text.

While the word, disorder, is used often in the NEJM to describe disease, it appears far less frequently in the pages of ATHM. It is significant to note, however, that despite its scarcity, it is used in ways that are similar to the ways it is used in the NEJM. This suggests either a parallel discursive element in the two ways of knowing provided by the two paradigms of medicine, or a more thorough integration of allopathic metaphors in CAM discourse. In the primary issue of ATHM, the word disorder is used to refer to the body in three specific instances. First, it appears in an announcement for funding for "clinical trials for schizophrenia or bipolar disorder" (Research Funds, 2002,

p. 29). Second, "depressive disorders" (Severus, Littman, & Stoll, 2002, p. 90) are mentioned twice in an article regarding the use of supplements for depression. And, finally, the word is used in a book review for homeopathic remedies for "disorders of the gastrointestinal system" (Riley, 2002, p. 112). Each of these examples reinforces the metaphor of the body as ordered by representing ill health as disorder and implying that a healthy body is an ordered body. In contrast, the fact that there are far fewer of these kinds of references to the body in ATHM than in the NEJM suggests that the contrast that the ordered body presents to the depictions of the body as complex and chaotic in CAM metaphors provides enough rhetorical tension to quell the potential adoption of the metaphor of order from the dominant allopathic discourse.

In comparison to examples from the NEJM, structural references to the body are relatively scarce in ATHM. The body is placed in structural terms when, in a research abstract, vitamins are said to reduce "tissue oxidative stress" (Shite, et al., 2002, p. 90) on the heart, which depicts a structural stress on the physical tissue of the heart. Structural terms are also used for nonphysical body processes in an article on using Traditional Chinese Medicine (TCM) to treat uterine fibroids: "These [acupuncture] sessions emphasized removing what TCM calls stagnation in the pelvis, increasing pelvic blood flow, and improving lymphatic drainage of the pelvis" (Mehl-Madrona, 2002, p. 42). Here, stagnation refers to the body's energy. By imposing structural language on a noncorporeal aspect of the body, as well as to the physical aspects of blood and lymphatic flows, this discourse creates a metaphor of a structured body system, implying a sense of order. But, more importantly, these references are far less apparent in ATHM than in the allopathic text. In fact, they are rare enough in ATHM that, were they not so apparent in

the NEJM, they would not have added up to being metaphorically significant in the CAM text. This rarity points to the possibility that the metaphor of structural order is evident in the CAM discourse as a parallel element to allopathic discourse, or that the adoption of structural order is more deeply integrated in CAM discourse. The fact that the term is used far less often in the CAM text points to the latter in that it mimics the ways allopathic terms are evident to a lesser degree in their adoption rather than in their primary text. Further, if the terms were parallel, they would likely be used to a similar degree in each text.

In contrast to the scarcity of structural terms, the allopathic metaphor of the body as mechanized appears in ATHM more than any other of the allopathic metaphors, suggesting a deeper integration of this metaphor. In many ways, the inclusion of mechanistic terminology demonstrates an effort to validate CAM therapies by defining them through mechanisms. However, mechanistic language is also used to describe allopathic practices in contrast to a less mechanistic CAM approach. These conflicting representations of the body as mechanistic point to the inherent tension in ATHM between knowing the body as a whole, complex, and contextualized being, and knowing it allopathically as a fragmented, ordered, and isolated physical entity. In regard to mechanization in ATHM, I describe the ways that mechanistic terminology is adopted in ATHM to describe the body as ordered, and how mechanistic terminology is also used to define allopathic practices as different from CAM practices.

Integration of the allopathic metaphor of mechanization is strongly evident in the adoption of the layout of scientific research that is used in ATHM and that helps portray the body as mechanized. In many ways in the text, fitting the study of CAM therapies

into the format of scientific research appears to be like trying to fit a round peg into a square hole. This awkward fit reveals the particular tension between the value of order as being inherent to mechanization in the allopathic way of knowing, and the complex and chaotic nature of the body as it is defined throughout the CAM metaphors.

The layout of research and science-based articles in both journals offers a format that reveals a mechanistic regard for the body. The research articles in ATHM follow a series of steps that contain the body in a depiction of ordered, mechanized processes. In the NEJM articles, these steps include a background description, a methods section, results, and a concluding discussion (Hack, et al., 2002; Brex, et al., 2002; Chang, et al., 2002). In ATHM, these steps are more numerous, but similar in content. They include a context section that describes the problem or question, a study objective, the design and setting for the study (equivalent to methodology in the NEJM), a description of participants, the intervention performed, measures for outcome, results, and a conclusion (Mehl-Madrona, 2002; Engebretson & Wardell, 2002; Tough, Johnston, Verhoef, Arthur, & Bryant, 2002; Jeffrey & Belcher, 2002). Just as in the NEJM, the scientific process outlined here suggests that the body is a generalized mechanism to which the proper methods may be applied to create a mechanical solution. It is important to note the large degree of similarity in article formatting between the two journals. The steps outline the same process of research. Also, the fact that research occurs on a group of participants in order to define a generalized body reinforces the allopathic tendency to generalize the body rather than contextualizing individual experiences of patients. When these research steps are employed in CAM, the body is generalized as well.

However, there are also some important differences in the steps through which research in ATHM is outlined. First, there are nine steps in the process as it is outlined in ATHM, as opposed to the four steps in the NEJM articles. Although these steps outline an equivalent process, the fact that the articles in ATHM break them down into smaller steps complicates the process and provides more room for the body to be portrayed as complex. Another important difference occurs in the way the body is generalized through these research steps. While the NEJM describes the patients involved in research as subjects who often number in the hundreds to thousands in each study, the research steps in ATHM include a step based solely on describing participants. This additional step allows for a slightly more detailed description of patients. This difference is minor in that participants' bodies are still grouped to define a generalized body. The difference becomes more significant when taken into consideration with the allopathic metaphor of the body as generalized.

Beyond the processes of research, mechanistic terminology is also used in the CAM journal similarly to the ways it is used in the allopathic journal. The term, mechanism, is used to describe the body as often in ATHM as it is in the NEJM. This terminology reinforces the metaphor of the body as a passive object, as well as implies that the body is linear and robotically structured. Further, this metaphor reduces the possibility that the body has an innate intelligence by equating body processes with the processes of mechanistic objects. Given this last implication, it is surprising to see the use of mechanistic language in regard to the body as often in ATHM as in the NEJM because CAM discourse speaks often about the innate intelligence and wisdom of the body. In an article on the use of acupuncture for uterine fibroids, "the mechanisms by

which acupuncture could treat uterine fibroids remain obscure" (Mehl-Madrona, 2002, p. 45), and in another article in the primary text, a particular model of thinking "can provide an elegant framework for understanding the complexity of and possible explanatory mechanisms for the placebo effect" (Astin & Astin, 2002, p. 72). These examples reveal a tendency of CAM discourse to mechanize the body in ways that are similar to the dominant discourse of allopathic medicine. These examples may exist as a direct result of the effort on behalf of ATHM authors to validate their research for a scientifically-minded audience. This seems to be the case, given that each of these examples acknowledges the "obscurity" or "complexity" of the human body and the struggle to see it mechanistically.

Perhaps most telling of this conflicted use of the term, mechanism, is a reference to mechanism in regard to the human body in the editor's letter section, entitled "Notes on the Journey." In it, a discussion of spirituality and the nature of healing:

... healing research goes beyond using healing intentions or prayer to cure disease. The most important issue in this research is not how large the effect sizes are in any given experiment, *but whether or not the effect exists at all* [emphasis in the original]. If it does, the universe is utterly different from the picture given to us in modern science. Why? If consciousness, through whatever mechanism, can exert nonlocal effects elsewhere in the world, then it is, itself, in some sense nonlocal. And if consciousness is nonlocal, then it is infinite, because a limited nonlocality is a contradiction in terms. Nonlocality implies *infinitude* [emphasis in the original] in space and time, and thus eternity and immortality.



This realization dwarfs whether or not we can use prayer or intentions to benefit a particular disease. (Dossey, L., 2002, p. 109)

The use of the term, mechanism, here is paradoxically situated in a discussion that minimizes the impact of mechanization of the body by placing the body and the processes of healing in a broad, nonlinear, and nonrational context. The fact that the word is used in spite of an effort by the author to reach beyond the limitations of scientific perspective speaks to the affect of the dominant scientific conception of the body on CAM discourse, despite the explicit effort to demechanize the body in the passage through connecting it to a universal and infinite consciousness.

Even though mechanism is used to describe CAM practices, it is also used to differentiate allopathic practices in ATHM. For instance, the word, mechanism, and the metaphor it implies, is used occasionally in ATHM to refer to allopathic practice and to reveal an alternative, non-mechanical view of the body. "Mechanism" is used in ATHM in order to compare CAM directly with allopathic practice when the herb, maca, is compared to the pharmaceutical drug, Viagra, and is said to act "more on the libido, whereas Viagra acts more on mechanical function" (Balick & Lee, 2002, p. 98). Here, the difference between libido and mechanical function is unclear, however, the way that this example engages the metaphor of the mechanical body, but places that metaphor in the realm of allopathic medicine, offers a less mechanized explanation for the functions of maca, implying that this CAM therapy is less mechanistic than allopathic Viagra.

Mechanization of the body in ATHM occurs occasionally in the form of a specific comparison of the body to a computer or machine. In one article, a hypothetical patient is said to "receive verbal and nonverbal input, reinforcement, and guidance from others that

alters mood, provides insight, and changes consciousness" (Astin & Astin, 2002, p. 73). The use of input to describe messages from other people portrays a model of interaction based on mechanization. This kind of mechanization also occurs in ATHM in a description of the "processing speed" (Roger Walsh, 2002, p. 85) of the mind, which refers to the act of thinking in terms of mechanical function. These examples reveal the possibility that CAM practitioners see the body through the metaphor of mechanization to a similar degree as do allopathic practitioners. It is interesting to note that these mechanistic terms in ATHM are used to describe the mind, rather than simply the physical form of the body. By discussing the mind, the discourse reinforces the bodymind concept that is so central to the CAM metaphor of wholeness.

In contrast to the adoption of mechanical terminology by CAM, mechanical terminology is used often in ATHM in order to describe an alternative to the metaphor of mechanization. This demechanizing effort is evident in several sections of ATHM, however, it is often written through terms that reveal the underlying metaphor of the body as mechanism, revealing the tension between the two ways of knowing that body in ATHM. In an article of ATHM, an osteopathic physician is noted for using a philosophy that is often upheld in CAM practices -- "that if a person's not broken, we should not try to fix them" (Chilton, 2002, p. 101). Here, the body is referred to through the mechanism metaphor by the suggestion that a body can be broken and fixed. This example, like previous examples, offers an important point of tension in CAM discourse. While CAM discourse often refers to the body as being emotional and spiritual, and therefore refrains from treating the body as a mechanism, this journal also offers discourse that refers to the body through the metaphor of mechanism. This conflict seems to occur as a result of an

effort to appeal to allopathic audiences by employing a research format that has been deemed valid by allopathic institutions. The potential that more typical CAM ways of knowing the body will be lost as this adoption continues to take place exists, and is discussed more thoroughly in the discussion chapter of this thesis.

## CONTROL, CONFLICT, REGULATION

The three allopathic metaphors in this section include the body as controlled, the body as conflicted, and the body as regulated by medical institutions. These are evident to varying degrees in ATHM. Overall their appearance or lack of appearance points to an awareness of and resistance to allopathic ways of knowing by CAM authors.

Particularly, resistance to the adoption of allopathic metaphors seems to climax in the metaphor of conflict, and resolves somewhat as the metaphor of the body as regulated is more integrated into the CAM text. In this section, I outline these three allopathic metaphors as they appear in ATHM.

The metaphor of the body as controlled by medical institutions is very rarely represented in ATHM. Instead, references to the body as being self-healing, as well as self-regulating, describe the relationship between patients and medical practice as being one of partnership and support.

One way that the metaphor of control appears often in the NEJM is through the use of the term, management, to describe how healing is imposed on the body by practitioners. The articles in ATHM offer far fewer examples of the use of the term, management, in regard to the body. There are two places in the primary issue of the journal in which this term is used. One is a reference to allopathic practice in an article in

which "surgical management is suggested ... to keep the eyes in the straight-ahead position" (Frenkel & Frenkel, 2002, p. 120). The other use of the term in ATHM occurs in a study of CAM use among patients, in which "patients are eager to assume a role in their disease management" (Tough, Johnston, Verhoef, Arthur, & Bryant, 2002, p. 62), which employs the term but shifts the possibility of managerial power away from the institution of medicine and toward patients themselves. The fact that the term, management, is used far less often in ATHM than in the NEJM points to the possibility that CAM discourse is less inclined than allopathic discourse to exert the kind of institutional power over the body implied by the use of managerial terms.

There is another way that institutional control over the body is implied in ATHM. This is when the term, administration, is used in regard to treatment of patients. In one article, the term is used several times, such as when "the administration of a medication can produce changes in interior states such as moods" (Astin & Astin, 2002, p.72), and when "subjects are administered a drug" (p. 72). The use of "administration" to describe medical treatment relies upon an assumed power differential between medical institutions and patients in which physicians, as operators of institutional power, occupy a position of control over the bodies of patients. When the term is used in professional medical discourse, such institutional control over the body is reinforced in the minds of practitioners and in the routines of medical practice.

Despite the use of the term, administration, the primary approach exhibited throughout the articles in ATHM is one in which the role of the practitioner is to "promote health and prevent disease as well as supporting [*sic*] healing and symptom reduction" (Engebretson & Wardell, 2002, p. 53) in patients, or to "activate the patients'

own self-healing response, which was the most important ingredient” (Mehl-Madrona, 2002, p. 46). The words, support and activate, do not carry the same power differential as words used in a similar context in the NEJM, such as the term, management and instruction. These alternatives are very much tied to the CAM metaphor of the body as self-healing, and, overall, the metaphor of control does not seem to eclipse the importance of the self-healing body in ATHM.

The allopathic metaphor of the body as conflicted is almost entirely absent in ATHM, although it is very strongly developed in the NEJM. This fact seems to suggest that the ways of knowing involved in seeing the body as conflicted are not being adopted by CAM discourse to the same extent as those ways of knowing represented in other allopathic metaphors. Instead of adopting the metaphor of conflict, ATHM mentions aspects of conflict in order to describe allopathic practices, often in a critical way. This dynamic reveals an important way that CAM discourse strays from its tendency to adopt allopathic ways of knowing in order to appeal to an allopathic audience, and instead asserts the importance of CAM ways of knowing by differentiating them from allopathic practices and discourse.

References to the violent aspects of allopathic medical practices through the metaphor of conflict in the body appear often in ATHM. Often, these references to violence and conflict in medical practice in ATHM appear as criticisms of allopathic practice. In a research abstract, a study is described as: “Patients undergoing percutaneous coronary intervention (PCI) for unstable coronary syndromes have substantial emotional and spiritual distress that may promote procedural complications. Noetic (nonpharmacologic) therapies may reduce anxiety, pain, and distress” (Krucoff, et

al., 2002, p. 87-88). Here, the allopathic procedure of PCI is described as being traumatic to patients, and noetic therapies (in this study, they include stress relaxation, imagery, touch therapy and prayer) are contrasted as being relieving and healing. The conclusion of this abstract includes, "acceptance of noetic adjuncts to invasive therapy for acute coronary syndromes was excellent" (p. 88). This description of an allopathic therapy as an invasive and distressing procedure which is undergone by patients suggests a criticism of allopathic practice by emphasizing the trauma caused by allopathic medicine in contrast with the relieving force of CAM practices. The study views CAM practices as a less invasive medical force. In this case, the attacker is the surgeon or other allopathic practitioner, a depiction that is reinforced in an article on the National Center for Complementary and Alternative Medicine's (NCCAM's) advisory council meeting in which "research to test CAM approaches to treat and/or prevent diseases associated with biological warfare activities, [and] to ameliorate the effects of conventional treatments" (Muscat, 2002, p. 24). When allopathic treatments are listed with biological warfare in terms of their damaging effects on the body, allopathic medicine is implied to be violent and traumatic, and the body is placed in a metaphor of conflict from which it can be protected by CAM practices. These examples illustrate a tendency of ATHM authors to differentiate and even criticize allopathic practices and discourse, offering a particular awareness of and resistance to allopathic ways of knowing by CAM authors.

The discourse of CAM, though it most often implies a criticism of allopathic medicine's tendency to place the body in situations involving violence, makes occasional use of the violent nature of the metaphor of conflict to describe CAM practice. The one example found in this issue of ATHM involves a study of CAM therapies for uterine

fibroids in which, "Minimal and local tissue destruction may help suppress tumor cells" (Mehl-Madrona, 2002, p. 45), revealing that CAM practices can also involve destruction and suppression of the body, implying that it can represent a conflict to the body. It is notable, however, that the phrasing itself limits its own power to destroy by keeping the destruction to "minimal and local" proportions. This suggests an awareness of and discomfort with the violence aimed at the body through such an approach, and reinforces the fundamental tension between the two ways of knowing the body presented in ATHM.

The metaphor of the body as regulated appears to a significant degree in ATHM, although, like every other allopathic metaphor, it is far less developed than in the NEJM. The use of this metaphor in ATHM offers a degree of integration similar to that in the metaphor of the body as mechanized. However, the integration here offers more examples of the tension between the two ways of knowing the body. This occurs most directly when the body is measured. Just as it is in the NEJM, the body is measured in ATHM both quantitatively and qualitatively, though both are developed far less in ATHM than in the allopathic text.

The process of abstracting the body through measurements is apparent in ATHM in ways that show how CAM discourse utilizes measurement of the body to validate CAM research for an allopathic audience. Measurement of the body occurs most often in research articles in the journals. Research articles in ATHM demonstrate a strong tendency to utilize regulation through measurements. In another research article on the touch therapy, Reiki, results are termed as follows:

Comparing before and after measures of the quantitative data, anxiety was significantly reduced ( $t = 2.45$ ,  $P = .02$ ). Systolic blood pressure dropped

significantly ( $F = 6.60, P = .003$ ). Biofeedback changes included an increase in skin temperature and a decrease in electromyographic (EMG) readings during the treatment, though the before and after changes were not significant. Salivary IgA levels rose significantly ( $t = 2.33, P = .03$ ), whereas salivary cortisol showed a downward trend that was not statistically significant. (Engebretson & Wardell, 2002, p. 49)

Here, the benefits of touch are quantified through the framework of numerical measurement and calculation. The use of measurements for physical elements such as blood pressure, skin temperature, and saliva content is similar to the use of measurements used in the NEJM. These physical aspects, however, are only used to reinforce a change in anxiety levels. In the quote, anxiety is said to be reduced through a numerical calculation, a quantification of an emotional state, something that is inherently nonlinear, nonrational, and immeasurable. This calculation of an emotional state points to a struggle on behalf of the authors to validate the CAM metaphor of the body as complex by portraying its complexity through a simplified system of measurements.

The tension involved in presenting CAM knowledge through an allopathic framework is apparent in a research article in which researchers "identified categories of relaxation, physical sensations, cognitive activity, and emotional and spiritual experiences" (Engebretson & Wardell, 2002, p. 49). The effort to establish measurements for such nonlinear and uniquely personal as "relaxation" and "emotional and spiritual experiences" provides an example of how research in ATHM is formatted to validate CAM ways of knowing the body as nonlinear and uniquely complex by containing and measuring such experiences. This provides an important paradox that is



present throughout ATHM, which is that by presenting the CAM regard for the body through the discursive framing of scientific research, the CAM way of knowing the body is skewed; what is said to be immeasurable in human beings is measured and reduced. The implications of this effort to fit the round peg of CAM ways of knowing into the square hole of allopathic discursive formats are discussed further in the final chapter of this thesis.

This effort to fit CAM ways of knowing into an allopathically-inspired discourse is actually mentioned in the same article in order to define a difference between the two approaches to medicine. In this article:

Biomedicine's major concern is with effective treatments for specific diseases. Most biomedical research is predicated on determining aggregate effects through normal distributions. Mechanisms of action are determined and the direct effects of interventions are measured. Concluding that nothing happened to participants based on analysis of aggregate data could misinterpret these balancing actions that are described by healers. Individual variations could cancel each other on numerical reductions. (Engebretson & Wardell, 2002, p. 52)

By discussing the regulatory process of allopathic medicine through "determining aggregate effects" through statistical distributions, the authors seem to differentiate allopathic biomedicine from CAM in terms of how allopathic medicine regulates the body by generalizing it through measurements.

An example of the way ATHM presents research without the emphasis on numerical regulations appears in the following passage, which is taken from a methods section of a research article on uterine fibroids in ATHM that is comparable to the

sections from multiple sclerosis research in the NEJM quoted in the chapter on regulation in allopathic medicine:

Standard measurement of uterine fibroids consists of 3 dimensions for the uterus and the longest measurement for the fibroid. For measurements of shrinkage or growth, we used the reported diameter of the fibroid. Patients agreed to use the same radiology group for their ultrasound studies so comparisons would be consistent before and after treatment. This was necessary because patients' managed care health plans required different radiology groups. Patients had a pelvic sonogram within 1 month of starting the protocol and again at 6 months (usually the end of treatment). Because patients used the same radiology group for both sonograms, it was believed that variations in technique would be consistent and not affect results. Rate of growth was calculated by comparing the diameter of fibroids in centimeters per 6 months. (Mehl-Madrona, 2002, p. 39-40)

In this example (which is among the most numerical and measurement-based passages in this issue of ATHM), the body is framed in the confines of numerical definitions of regularity when fibroids are measured and their growth rates are compared in order to define the state of the body. An important difference between this kind of passage in ATHM and a similar passage in the NEJM, such as those listed in the previous chapter regarding multiple sclerosis, is that the ATHM article continually references patients themselves. In doing so, the discourse continually returns to the touchstone of holism by referring to the patient as a complete entity who has uterine fibroids and who makes decisions about her treatment.

The second way that the body as regulated appears in ATHM is through the portrayal of risk and process of using cost-benefit analysis in medical decision-making. Risk is the most prominently used element in this group. The element of risk is mentioned in ATHM several times, though not as often as in the NEJM. In one article, “depression is associated with elevated rates of cardiovascular morbidity and mortality. This elevation seems to be due to a significantly increased risk of coronary artery disease increased risk of coronary artery disease” (Severus, Littman, & Stoll, 2002, p. 90), and later in the same article, “treatment recommendations that may reduce the increased risk of cardiovascular mortality in patients” (p. 90). Here, risk is used in a way that mimics its use in the NEJM, suggesting that the CAM text is adopting the allopathic tendency to see the body in terms of the risk of losing. This risk also appears in a book review in which, “the risk of developing breast cancer has increased dramatically in recent decades” (Johnson, 2002, p. 112).

In addition to the two uses of risk above, there is an article in an example in a research abstract in which, “patients were divided into a high-risk group based on the presence of 5 risk factors ..., or a low-risk group” (Aviles, et al., 2002, p. 86) for a study on cardiovascular disease. By defining patients as being at a high-risk or low-risk for disease, the authors of this study demonstrate a strong tendency to utilize the metaphor of regulation of the body in a way that is similar to allopathic discourse. In addition to this example, there is one example of the kind of cost-benefit analysis employed by allopathic medicine in ATHM. In an ATHM article, “the odds ratio ... of tooth loss were (sic) estimated by stepwise multivariate logistic regression” (Krall, Wehler, Garcia, Harris, & Dawson-Hughes, 2002, p. 87), also implying the metaphor of the regulated body. This

odds ratio is the only example of a cost-benefit model used in ATHM. Overall, the metaphor of the body as regulated appears far less often in ATHM than it does in the NEJM, but the ways it does appear mimic the ways it appears in the allopathic text. Also, when regulatory terms are used to measure and define the body, they help establish a regard for the body that may be more readily validated by allopathic audiences because it defines the body in concrete physical terms that can be manipulated by medical calculation and cost-benefit analysis.

The apparent adoption of this regulatory rhetoric in ATHM points to a tendency of CAM discourse to utilize allopathic metaphor that contradict and erode the CAM ways of knowing the body that are represented throughout ATHM. These are described through the metaphors of the body as whole, the body as complex, the body as self-healing, and the body as sacred. The implications of adopting allopathic ways of knowing for CAM discourses, practices, and institutions are discussed in the next chapter.

## **Chapter Five**

### **Discussion**

The concept of discipline developed by Foucault has provided a basis by which to understand the ways that allopathic medicine and CAM construct the body through figurative metaphors in professional journals. Foucault applied his theory of discipline to allopathic medicine (Dreyfus & Rabinow, 1983; Foucault, 1963/1973). I found in this analysis that allopathic medicine tends to use metaphors that dominate the body more so than does CAM, a fact that reinforces Foucault's criticism of allopathic medicine as being a dangerously disciplinary force upon the bodies of patients. While both forms of discourse define the body through the use of metaphors and, therefore, provide some degree of discipline, the discourse of allopathic medicine offers a stronger disciplinary force in two primary ways. First, allopathic discourse uses metaphorical references to the body more often and, therefore, abstracts the idea of the generalized body from the reality of any one actual body more thoroughly than does CAM discourse, and, second, the metaphors used in allopathic discourse help define a stronger power differential between medical institutions and the bodies of patients. This tendency of allopathic medicine to discipline the body seems to be adopted in the use of some allopathic metaphors by the CAM discourse in this analysis.

The institutions of medicine and healing are not the only discursive structures that use metaphor in order to conceptualize and work with the body, nor should they be blamed for or expected to stop using metaphorical language. It would be impossible to stop without stopping communication altogether. Instead, as with all uses of language, it is important to consider the metaphors used in medical discourse as lenses through which

we may understand and question the conceptions of the body held by medical institutions and the resulting practices laid upon the body by these institutions.

The two objectives of this thesis are to investigate the ways that the body is framed in professional medical discourses of CAM and allopathic medical institutions, and to investigate the ways that CAM discourse may be affected by the dominant discourse of allopathic medicine. The primary questions raised in this thesis are: What metaphorical frameworks are used in professional medical discourse? How do allopathic and CAM discourse compare in their use of these metaphorical frameworks? These questions were addressed through the analysis of two professional medical texts, each representing one of the two types of discourse. The allopathic text is The New England Journal of Medicine, and the CAM text is Alternative Therapies in Health and Medicine.

The primary theoretical lens for this study is that of metaphorical analysis. My initial metaphorical analysis of the two texts led to two primary findings. In response to the first objective, I found that the two journals offered different and, in many ways, contradictory views of the body through the use of metaphorical references to the body. The CAM text provided metaphors that create a regard for the body as a whole, complex being that is contextualized by the emotional, psychological, and spiritual components of each individual human. This overall regard for the body is created and upheld by the four primary metaphors found in ATHM, which include the body as whole, self-healing, complex, and sacred. Together, these metaphors and the overall regard for the body that they create help define a way of knowing the body that is particular to CAM discourse. Notably, there are no references to these types of CAM metaphors in the NEJM, the implications of which are discussed in the comparison section later in this chapter.

The metaphorical themes presented in the NEJM provide a different view of the body. Overall, the allopathic text reveals a regard for the body as a generalized, fragmented entity whose physicality is removed from other aspects of human life and subordinated to medical practices and institutions. The specific metaphors involved in creating and upholding this overall regard for the body include the body as passive, dominated, fragmented, structurally and mechanically ordered, controlled, conflicted and regulated. These metaphors help define an overall way of knowing the body that is strongly represented in the allopathic discourse. This way of knowing and the allopathic metaphors that help create it are apparent in ATHM to a far lesser degree than in the NEJM. The particular dynamics of how these allopathic metaphors do or do not appear in ATHM help define how the subordinate discourse of CAM may be affected by the dominant discourse of allopathic medicine.

The second objective of this thesis is to elucidate the extent to which CAM discourse is affected by the dominant discourse of allopathic medicine. I found that allopathic metaphors are presented in ATHM in ways that point to a phenomenon that has been described in other research on the influence of the powerful norm of scientific discourse upon the professional discourse of CAM -- the tendency to adopt or mimic the metaphors and images used in allopathic within CAM discourse (Montgomery, 1993).

In this chapter, I address the findings of this thesis in light of these objectives and questions. First, I evaluate and differentiate the metaphorical frameworks found in the two texts. Second, I discuss the implications of the use of allopathic metaphors in the CAM journal. Finally, I discuss the consequences of these results, including possible research opportunities that extend from the findings of this thesis.

## **Metaphorical Frameworks in the Two Journals**

The metaphorical frameworks I discovered in this analysis provide a direct response to the first objective of this thesis, which is to investigate the ways that the body is framed in professional medical discourse. The two journals present two different sets of metaphors, each contributing to an overall way of knowing that is unique to each of the two medical paradigms of CAM and allopathic medicine. These two distinct ways of knowing offer a response to the first objective of this thesis, which is to discover how the body is represented through metaphors in these two different types of medical discourse.

The metaphors that are represented in ATHM include the body as whole, the body as self-healing, the body as complex, and the body as sacred. Each of these metaphorical frameworks helps to create and reinforce the overall CAM regard for the body as a whole, complex being that is contextualized by emotional, psychological, and spiritual aspects of the individual lives of patients.

The metaphor of the body as whole is definitive of the unique knowledge of the body that CAM therapies offer. This is evident in the fact that CAM therapies are often referred to as holistic therapies. The metaphor of the body as self-healing occurs when the body is portrayed as having an innate wisdom and as having self-healing abilities that must be supported by practitioners as part of medical practice. When the body is portrayed as having an innate wisdom, it is individualized by the fact that each body, then, has an internal guide for its own healing process. This is something that cannot be generalized, and so healing must take place through understanding or at least honoring the individual, innate wisdom in each individual human body. In addition, when the role



of practitioners is described as being supportive of the body's own self-healing abilities, the body is seen as the central figure in healing, making it less possible for the body to be subordinated by medical practices, as it tends to be in allopathic discourse.

The metaphor of the body as complex also holds a central place in the overall CAM regard for the body. This complexity is often portrayed as beneficial to the self-healing functions of the body. It is important to note that complexity is not presented as a hindrance to healing, but instead is acknowledged to be integral to the healing process. When complexity is acknowledged and accepted in ATHM, it serves to support the CAM regard of the body as a whole, complex human being whose healing processes must be contextualized by the life experiences of each individual patient.

The final metaphorical framework for the body presented in ATHM is the metaphor of the body as sacred. This metaphor emerges from the acknowledgement of the intertwining of the physical body to the spiritual human being that occurs in the CAM metaphor of the body as whole. The deeply personal nature of the sacred reinforces the CAM tendency to personalize the body by contextualizing it in emotional and spiritual aspects of the individual lives of patients. This metaphor brings together the wholeness, complexity, and powerful self-healing abilities of the body that these metaphors describe, and elevates them to being not only acknowledged in medical discourse, but honored as vital aspects of the processes of disease and healing.

The four metaphors for the body in ATHM serve to create an overall view of the body as a whole, complex, individual human being that must be contextualized by the individual aspects of emotional and spiritual processes in order for medical practice to be

successfully engaged. This overall regard for the body is distinctly different from the allopathic regard to the body. In many ways they represent opposing views of the body.

The metaphors found in the NEJM represent an overall regard for the body as a generalized, fragmented, and physical entity that is subordinate to medical practices and institutions. The first set of allopathic metaphors I have outlined in this thesis includes the body as passive, the body as dominated, and the body as fragmented. When the body is portrayed as being passive, it is placed in the position of being submissive to medical practice in that the body's processes of healing are determined or, at worst, dictated by the processes of medical practice. As it is presented in the text, the metaphor of the body as passive helps reinforce the allopathic regard for the body as being solely physical, rather than a part of an overall human being, in that it does not acknowledge the actions of the individual human in the processes of disease and healing, nor does it acknowledge the emotional and spiritual contexts of patients' lives that might serve to motivate such actions. Subordination of the body is reinforced when the body is dominated in medical discourse. Domination of the body is a process that is driven by an effort to place the body in a position of submission. The final metaphor in this set is the metaphor of the body as fragmented. The practice of discursively and physically fragmenting the body is another form of submitting the body to the dominating force of medical practice, as well as highlighting the allopathic focus on the physical aspects of the body.

The second set of allopathic metaphors found in this thesis includes the body as ordered through structure and mechanization. When the patient is seen through the framework of her or his physical structure, she or he is defined by the boundaries determined by the medical gaze. Further, when the body's physical existence is defined

by medical institutions, those institutions then have the power to manipulate the ways in which the body may or may not exist. The metaphor of the body as mechanically ordered operates similarly to the metaphor of the body as structured in that it provides a way in which medical discourse defines the body's physical existence. Overall, the metaphors of the body as structurally and mechanically ordered privilege the physical aspects of the body over the holistic components of individual human lives, which supports the allopathic regard for the body as a generalized, physical entity that is subordinate to medical practices.

The third and final set of allopathic metaphors in this thesis include the body as controlled, the body as conflicted, and the body as regulated by medical institutions. Because this set of metaphors involves institutional control of the body, it presents particularly strong evidence for a tendency of medical discourse to present the body as being submissive to medical institutions. The metaphor of the body as controlled by medical institutions strongly reinforces the allopathic way of knowing the body as subordinate to medical institutions and practices. The metaphor of the body as conflicted provides further instances of the body as being manipulated and subdued in order to be healed by the dominating force of medical institutions. The metaphor of the body as regulated imposes a final and powerful group of terms by which the body is subjected to the rules and regulations created by and enforced by medical institutions. The processes of regulation subordinate the body to the controlling force of medical practice, and they serve to further abstract individual human bodies into a singular, generalized, and measured form.

Altogether, the three sets of metaphors in the NEJM create a portrayal of the body as a generalized, fragmented entity whose physicality is removed from other aspects of the individual lives of patients and is subordinated to medical practices and institutions. It is important to note that these allopathic metaphors and values have been precipitated from the texts, reworked and re-patterned through analysis, and presented in a certain order here. They exist simultaneously and adjacently in medical texts, which means that each of these processes -- dominating and fragmenting, ordering and normalizing, and controlling and regulating -- are occurring amongst one another in the institutions of medicine and, therefore, in and on the bodies of patients.

The fact that all these metaphors are evident in the NEJM suggests that allopathic medicine operates through a tendency to overpower the body. In comparison, the metaphors presented in the CAM ways of knowing the body often contradict the allopathic ways of knowing that emerge from allopathic metaphors. Given this inherent contradiction, it is surprising to note that many of the allopathic metaphors for the body are depicted in ATHM. This dynamic is presented in the next section.

### **Comparison of the Two Journals**

My analysis of implied metaphors in the NEJM and ATHM reveals that the two journals offer two distinct kinds of metaphors, and that metaphors appear with more repetition and forcefulness in the NEJM. This comparison offers a response to the second objective of this thesis, which is to investigate the ways that the subordinate discourse of CAM may be affected by the dominant discourse of allopathic medicine. Overall, this metaphorical analysis shows that the two discourses frame the body

differently in the fact that the NEJM offers metaphorical references to the body far more often and in far more detail than does the CAM journal, as well as in the fact that the primary metaphors used in each journal are different. I found that ATHM offers four specific metaphorical categories for the body that are not used at all in the NEJM. This lack of CAM metaphors in allopathic discourse points to the possibility that these metaphors help define a uniquely CAM way of knowing the body. Also, the fact that CAM metaphors are missing from the NEJM suggests that the dominant discourse of allopathic medicine is not apparently affected by CAM ways of knowing at this point in the convergence of the two medical paradigms. At the same time, many of the allopathic metaphors for the body appear in ATHM. The use of allopathic metaphors in ATHM are never abundant or well-developed enough to supercede or replace the CAM metaphors in the text. Instead, allopathic metaphors appear as a sort of adoption of allopathic discursive patterns, despite the ways that they contradict CAM ways of knowing. This finding reinforces previous academic study that the use of allopathic language in CAM discourse "represents a certain kind of capitulation to the social status of the 'scientific,' a status which natural healing seems otherwise intent on opposing" (Montgomery, 1993, p. 78).

Here, I briefly review the ways that the two journals compare in their use of metaphor, specifically, the ways that allopathic metaphors do or do not appear in ATHM. Next, I explain three components of the explanation for the presence of allopathic metaphors in the CAM text. Further, I argue that the use of allopathic metaphors in ATHM points to a possible adoption of allopathic ways of knowing the body by CAM institutions, and I argue that as CAM practitioners continue to adopt the language of

allopathic discourse in an effort to gain professional validation, the ways of knowing that CAM has to bring to the table may become invalidated and subsumed.

The first set of allopathic metaphors includes the body as passive, the body as dominated, and the body as fragmented. These metaphors appear far less in ATHM than they do in the NEJM. Passivity in the body is rarely presented in ATHM. The coexistence of the body as passive and the body as actively self-healing in ATHM introduces a degree of tension that exists throughout the text between the two ways of knowing that this journal seeks to bridge. The metaphor of the dominated body appears in ATHM in two primary ways. First, it provides a description of allopathic practice by referencing the imaging techniques used in allopathic medicine. This reinforces the different point of view provided by CAM. On the other hand, the second way this metaphor appears introduces one of the primary ways that CAM discourse is similar to allopathic discourse. When the metaphor of the body as dominated appears alongside CAM metaphors such as the body as self-healing and the body as sacred, the tension between the two ways of knowing in the journal is put into stronger relief.

The third allopathic metaphor in this section is that of fragmentation. This metaphor appears rarely in ATHM, reinforcing the unique point of view of CAM rather than the affect of allopathic discourse. However, the fact that it does appear occasionally despite its strong contradiction of the CAM metaphor of wholeness, points again to a growing tension within the CAM discourse to hold both ways of knowing.

The second group of metaphors includes the body as ordered through structure and mechanization. As with all the metaphors discovered in this thesis, they appear less often in ATHM than in the NEJM. The metaphor of the body as ordered through

structure appears far less often in the pages of ATHM. The metaphor of the body as ordered through mechanization provides perhaps the most complex set of comparisons between the two journals. This metaphor appears both vastly differently as well as remarkably similarly between the two journals, revealing the conflict inherent in the convergence of these two forms of medical discourse. This metaphor seems to appear in ATHM as a result of the effort by this CAM journal to mimic the scientific research framework for allopathic readers.

Although there is no way to identify a pure form of either discourse, the appearance of the metaphor of mechanization helps demonstrate fundamental differences between the two medical discourses. For instance, the fact that ATHM provides specifically non-mechanical references to the body by portraying the body through the framework of a spiritual journey speaks to the possibility that CAM holds a uniquely non-mechanical perspective of the body. Alternatively, then, when the two journals show similarities, they can possibly be attributed to the effects of the convergence of the two discourses.

The third and final set of metaphors found in this analysis include the body as controlled, the body as conflicted, and the body as regulated by the institutions of medicine. The examples in this set of metaphor introduce a new element in the comparison between the two journals, which is a tendency of CAM discourse to provide a critique of allopathic discourse and practice through metaphorical references to the body. This element of criticism both differentiates the two discourses, as well as draws them together in that they begin to share elements of language.

The metaphor of the body as controlled by institutions of medicine appears less in ATHM than in the NEJM. There are similarities, however, which speak to a tendency of CAM discourse to adopt the terminology and, perhaps, the power differential between medicine and the body that is evident in this metaphor. The metaphor of the body as conflicted is almost nonexistent in ATHM, except as a description or critique of allopathic practices. The final allopathic metaphor, the body as regulated, offers the most elaborate depiction of the tension that exists in ATHM as CAM ways of knowing are reshaped to fit into scientific ways of knowing the body.

The three components that help explain the appearance of allopathic metaphors in ATHM include, first, the fact that some metaphors are, to some degree, inherent to both ideologies. Second, the presence of allopathic metaphors is, in part, a strategic tool used by CAM authors to appeal to allopathic readers. And, most central to my argument, the possibility that CAM discourse is indeed being subverted as it molds itself into a form that is acceptable to allopathic readers and institutions of allopathic medicine.

The first component in the explanation for allopathic metaphors in CAM is a possible inherent overlap in the ways the body is portrayed by the two paradigms of medicine. As I mentioned in the first chapter, there is no way to identify a pure form of either CAM discourse or allopathic discourse. It is still possible to investigate the possibility of the two discourses converging by creating an amorphous but still intact boundary of definitions for each form of discourse, acknowledging that the two may inherently overlap. By looking at metaphorical references to the body in the two journals, I found evidence that points to specific differences between the two forms of discourse that may be seen as inherent to each, particularly in the metaphor of the body as



mechanized. However, because the allopathic metaphors contradict the primary ways of knowing of CAM, it seems unlikely that the allopathic ways of knowing such as mechanization represent a part of a cohesive ideology of CAM. Because the boundaries between the two types of discourse are both vague and dynamic, the argument that one is affected by the other will always hold the potential to be attributed to similarities that were already inherent to each discourse. After looking into the metaphorical frameworks in these journals, it seems possible to argue that convergence of the two discourses is indeed creating a change in at least the subordinate discourse of CAM.

Further, the fact that metaphors for the body appeared with more recurrence and more forcefully in the NEJM points to a tendency of allopathic medical discourse to abstract the body more than CAM discourse. This abstraction arises in many cases from a tendency of allopathic discourse to generalize the body more intensely than does CAM discourse. When the body is defined as an abstracted entity that is far removed from any one patient's experience, the concept of the generalized human body is, in itself, a metaphorical representation of actual human bodies.

The second component in explaining the presence of allopathic metaphors in ATHM is the possibility of the conscientious use of allopathic terminology as a strategy. The fact that ATHM is written to appeal to an allopathic audience helps explain some of the reasons for its adoption of allopathic discursive frameworks. Regardless of this function, the important knowledge this thesis brings to the dialogue regarding the convergence of allopathic medicine and CAM is the possibility that CAM ways of knowing will be subverted as CAM discourses tend to adopt allopathic ways of knowing the body. This process is evident in the ways that allopathic metaphors for the body are

adopted in ATHM, and the ways that CAM metaphors are distinctively not present in the NEJM.

The third explanation for the existence of allopathic metaphors in ATHM, and the one that is most relevant to the findings of this thesis, is the possibility that CAM is being, in a sense, colonized by allopathic ways of knowing. This explanation is actually supported by the previous explanations in that the contradictory nature of the two sets of knowledge represented by the two paradigms of medicine point to a lack of cohesion in the ideology of CAM if it does, indeed, include the metaphor of mechanization to the same degree that it embraces the metaphor of the sacred. Instead of representing a strong degree of overlap, the presence of allopathic metaphors in ATHM seems to indicate a stronger degree of subversion of CAM ways of knowing. Additionally, the use of allopathic metaphors as a strategy by CAM authors suggests that, if this strategy continues to be employed, subversion of CAM ways of knowing will only continue in the future.

### **Implications of the Results**

This study provides a snapshot view of the two medical paradigms of CAM and allopathic medicine as they exist in professional medical journals, and as they are situated at a crossing point in the year 2002. The particular ways that the body is represented and the ways that the two journals compare are isolated in order to create parameters for this study. This snapshot provides an important set of information regarding the converging discourses of allopathic medicine and CAM, and the possible dynamics involved in their merging process.

The first objective of this thesis is to investigate the ways that the body is framed in professional medical discourse. The metaphors that appeared in the texts revealed that a primary impetus for and result of medical discourse is a tendency of allopathic medical institutions to see and treat the body as if it were submissive to medical institutions and practices. This theme is not surprising in light of some of the critiques of allopathic medical discourse performed by Foucault (1963/1973) and others, who have articulated this tendency of medical institutions to overpower the body both discursively and in physical practice. The particular configurations of metaphors revealed in this thesis provide more evidence for the dominating tendency of allopathic medicine, reinforcing Foucault's critical assessment of the disciplinary power of allopathic medical institutions and discourses.

Importantly, the disciplinary power of the CAM discourse offers some differences from the way discipline is enacted in the allopathic discourse. The CAM ways of knowing the body that become apparent through the metaphors of the body as whole, self-healing, complex, and sacred help maintain the subjective power of patients. The ways that the body is described throughout these metaphors help describe the relationship between patients and practitioners as one that is equal, rather than one in which practitioners exert a dominating expertise. This way of knowing the body helps create the “aesthetic of existence” that can arise in those texts that exist outside the margins of disciplinary forces (Dreyfus & Rabinow, 1983, p. 263). In other words, although patients are still subjected to the institutional power inherent in CAM practices and discourses, they are given an active and empowered role in the healing process simply by being defined as actively self-healing human beings, and therefore the power of subjective

experience is upheld in the discourse. This constitutes a vital difference in knowing the body that CAM discourse and practices offer as they are integrated into mainstream allopathic medicine.

Montgomery's work on the rhetoric of CAM offers the claim that the system of knowledge provided by CAM offers "no alternative imagery ... regarding the phenomenon of disease" (1993, p. 80). In contrast, I found that CAM discourse tends to represent the body as a whole, complex, and contextualized human being, a regard that differs distinctly from the allopathic regard for the body as a fragmented entity whose physicality defines the limits of how healing and disease operate. The differences between my findings and those of Montgomery may be explained in the tendency I found in ATHM to juxtapose CAM metaphors that contradict allopathic metaphors. This tendency of CAM to utilize allopathic metaphors is asserted by Montgomery in that "if present trends continue, holism will continue to exist along the margins of biomedicine and will be slowly, selectively absorbed into it" (p. 87). In addition, when CAM discourse takes on the patterns of allopathic discourse, they will "ironically help strengthen biomedicine by being adopted and eventually explained in wholly scientific nomenclature" (p. 87).

The second objective of this thesis is to investigate the ways that CAM discourse is or is not affected by the discourse of allopathic medicine. This objective is approached with the acknowledgement that there is no way to identify a pure form of either allopathic or CAM discourse, but that it is important to articulate differences in order to identify the particular ways of knowing provided by each of these medical paradigms. The primary finding that arose from this objective is that CAM discourse utilizes many of the same

metaphorical frameworks as allopathic discourse, but consistently to a far lesser extent than does allopathic discourse.

The apparent tendency of CAM discourse to adopt the scientific discourse of allopathic medicine is not surprising, given that the CAM text I selected seeks specifically to appeal to an allopathic audience by adopting the scientific research model used in allopathic practice. The new information gleaned from this analysis is that it seems that CAM discourse takes the adoption of the allopathic model a step further by also adopting some of the metaphorical perceptions of the body that are held by allopathic institutions, practices, and discourse. It appears that CAM discourse is shifting toward a view of the body that mirrors that of the scientific paradigm.

One implication of this adoption of allopathic ways of knowing by CAM institutions is that the subordinate discourse of CAM validates and reinforces the fact that allopathic discourse is dominant. Given that the results of the first objective of this thesis revealed that allopathic medical discourse tends to overpower the body, a sort of double dominance occurs when allopathic discourse also tends to overpower the discourse of CAM. On the other hand, CAM, by providing an alternative discourse to the dominant discourse, offers an opportunity to demystify some of the naturalized assumptions about the body that are held by the dominant discourse of allopathic medicine, thereby offering a chance to rewrite and rectify some of the damaging, dominating frameworks that are held in allopathic discourses and practices.

Another implication of the reinforced dominance of allopathic discourse is that the unique ways of knowing held by CAM institutions, practices, and discourse may be lost -- ceded in an effort to validate CAM for the conventional ways of knowing held by

allopathic medicine. This entails the possibility that some values and types of knowledge, as well as perspectives inherent to non-allopathic are lost in the transmutation of CAM knowledge into the allopathic paradigm.

Because the disciplinary force of allopathic medicine tends to dominate and disempower patients, the ways that CAM discourse empowers patients by defining the body as powerful and active can help mitigate the dominating forces of allopathic discourse and practices. If CAM authors and practitioners continue to adopt allopathic ways of regarding the body, they will continue to discipline the body in ways that disempower patients. On the other hand, if allopathic institutions begin to take on some of the ways of knowing that CAM brings to the table, this mitigation of discipline becomes possible.

The possible benefits of adopting some of the CAM ways of knowing the body lead to a final implication of the convergence of these two discourses, which is the question of whether it is possible to change the practices of allopathic toward more natural approaches without changing fundamental views about the body. Also, will changes brought by CAM remain in practice if the same metaphors and implied values that inspire the practices of allopathic medicine are upheld within medical discourse? There is no way to know from the findings in this thesis whether practical change in allopathic practice will result from the introduction of CAM discourse, or, for that matter, whether practical change is occurring in CAM as allopathic discourses are adopted. However, given the power of professional discourse to inform practice, the potential for translation of these discursive patterns into medical practices is strong. Understanding

the actual practical applications of the convergence of these two medical paradigms can be left to future studies of both discourse and practice.

There are many other extensions of this thesis in terms of possible future study. This analysis was limited in that it focused on only one of perhaps hundreds of CAM publications, as well as multiple allopathic texts. Even more so, in an effort to look specifically at the effects of the dominant discourse of allopathic medicine, this study focused on a CAM journal that is written for an allopathic and scientific audience. Further research might be directed toward looking to see how the dominant discourse has affected other CAM texts, particularly those that are not geared toward an allopathic audience, to see whether the dominant scientific discourse is affecting CAM discourse as it is written for CAM audiences.

Overall, this thesis sought to inform the emerging dialogue among healthcare practitioners regarding the convergence of allopathic medicine with the various practices included in CAM. Through a careful study of metaphors in professional medical discourse, I have found that this convergence can be understood in two primary ways. First, each of the two paradigms offers a unique way of knowing the body that includes a particular way of disciplining the body. Second, the convergence of the discourse is apparent in the adoption of the dominant discourse of allopathic medicine by the subordinate discourse of CAM. This one-way adoption informs the dialogue regarding the potential for losing the unique CAM ways of knowing to the pull of the dominant discourse.

## Appendix A

Just as the discourses of medicine present their findings, to varying degrees, in the context of human experience, this project occurs in the context of my own interests and biases as a researcher. My interest in the convergence of allopathic medicine with CAM arises in my own experiences as a patient of both forms of medicine, and as a practitioner of massage therapy, a CAM modality.

When I was young, my mother worked as a medical transcriber. I remember listening to her sounding out the intricate workings of the language of medicine. The sounds of words like "olfactory epithelium," (lining of nasal passage), "immunogenicity," (genetic coding for immune function), and "periosteum," (lining of bones) inspired awe in my young mind as I came to understand that, in the coding of that language, doctors held a special knowledge of my body that I could never access without their expertise. This understanding has informed my relationship with my own body, as well as my interactions with healthcare practitioners whose knowledge I seek when I am sick or injured.

As an adult I have come to understand that the language of medicine, as unfamiliar as it sometimes sounds, does not hold a key to unlocking all the mysteries of my body. Instead, it holds a set of tools by which to understand the body – tools that I can choose to access, but that do not necessarily replace my own, intuitive knowledge of my body. Finding a complementary relationship between medical expertise and my own, personal expertise of my own body continues to be a challenge. It is important to note my own bias regarding the potential for CAM to enlighten the conventional paradigm of allopathic medicine and to empower patients.



This project resides in my curiosity regarding the kinds of knowledge the language of medicine holds. This curiosity includes questions such as: How does the language of medicine define the body in ways that are different from common language for the body? What does it mean for society that our bodies are redefined by medical institutions? How does the language of medicine inform the relationships between practitioners and patients? How does this language inform patients' relationships with their own bodies?

There is much to be curious about regarding embodiment and the convergence of allopathic medicine with CAM. My hope is that this project informs the ongoing dialogue regarding medicine and the body, and that it inspires more questions for future exploration.

## Appendix B Images from the Texts

The following figures include images, and their accompanying notes, from the primary analysis issues of the journals. Each is labeled with a figure number that is referenced in this thesis, and each image includes the name of the journal and the number by which it is referred to in the journal, as well as the chapter numbers in which it appears in this thesis.

Figure B1  
From: NEJM page 168, Figure 1

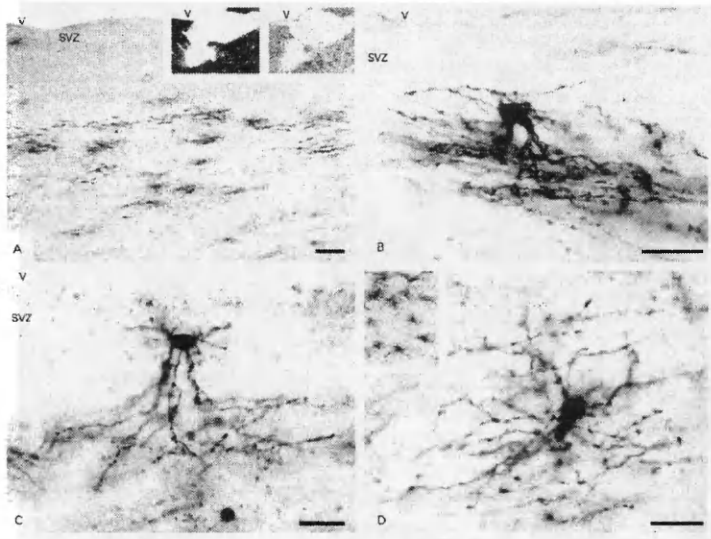


Figure B2  
From: NEJM page 170, Figure 3

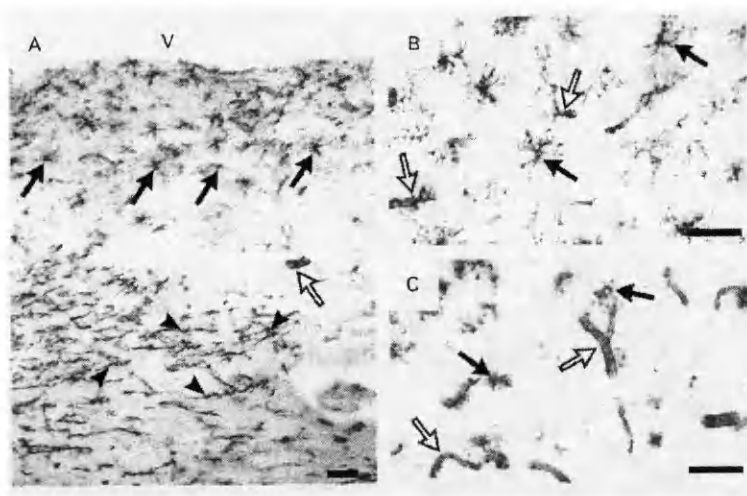


Figure B3  
From: NEJM page 171, Figure 4

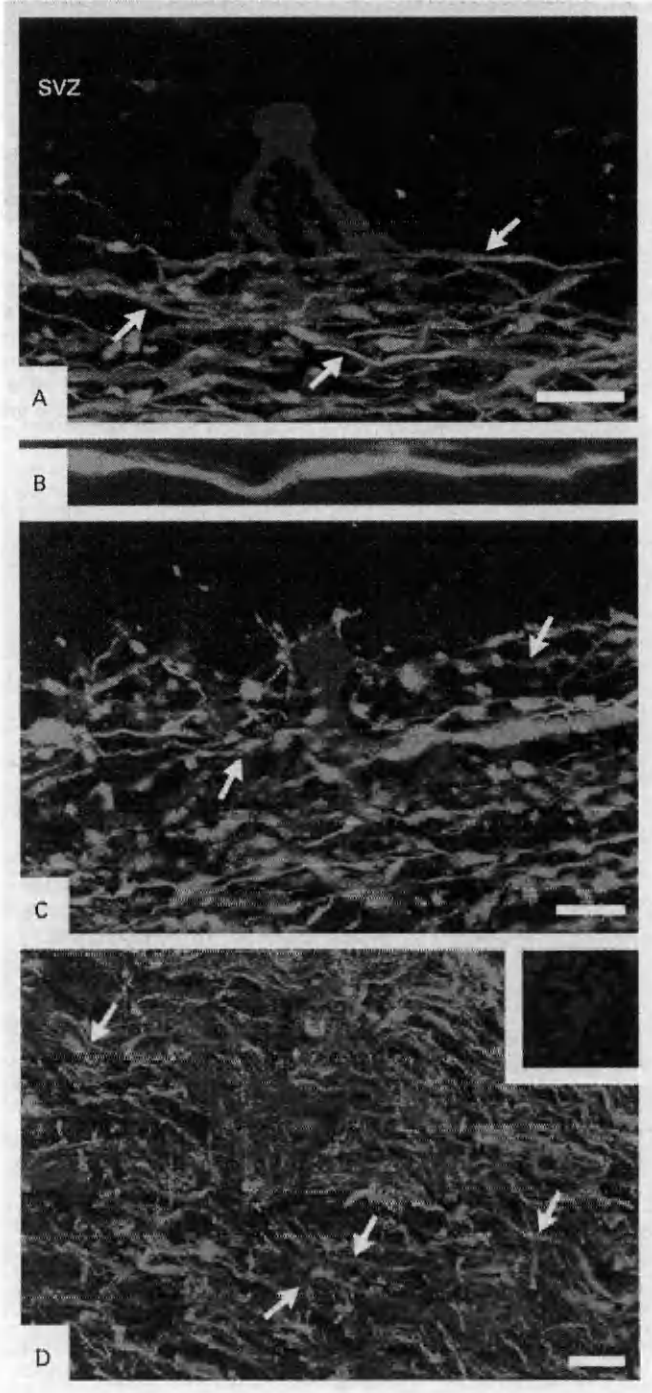


Figure B4  
From: NEJM page 172, Figure 5

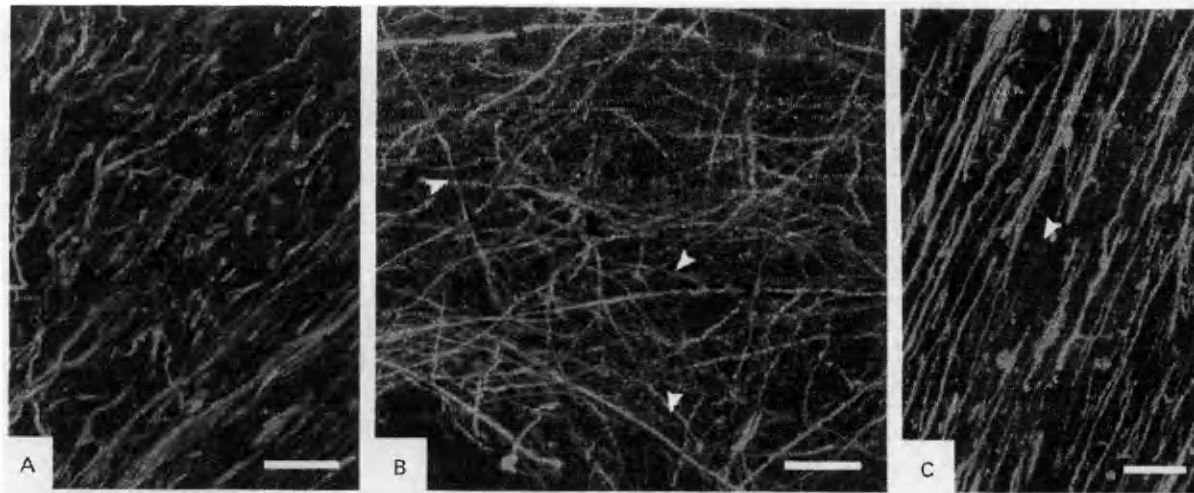


Figure B5  
From: NEJM page 174, Panel A



Figure B6  
From: NEJM page 174, Panel C

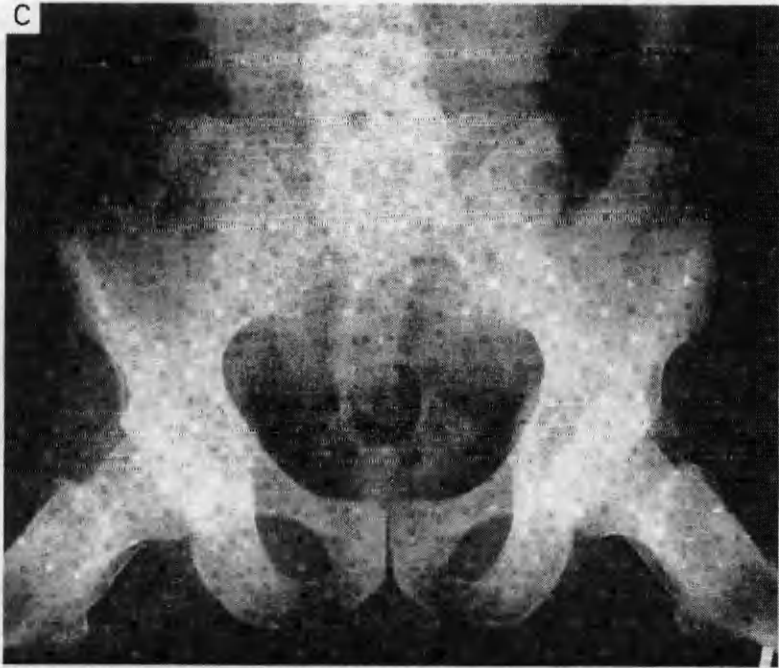


Figure B7  
From: NEJM page 174, Panel B

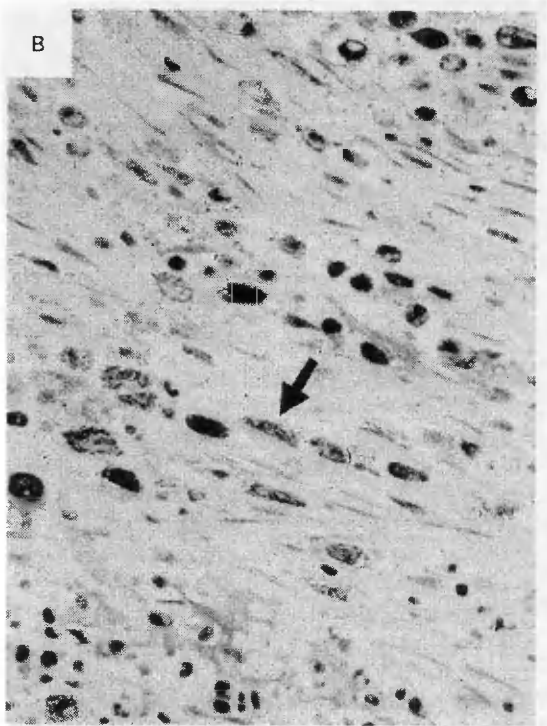


Figure B8  
From: NEJM page 176, Figures 1 and 2

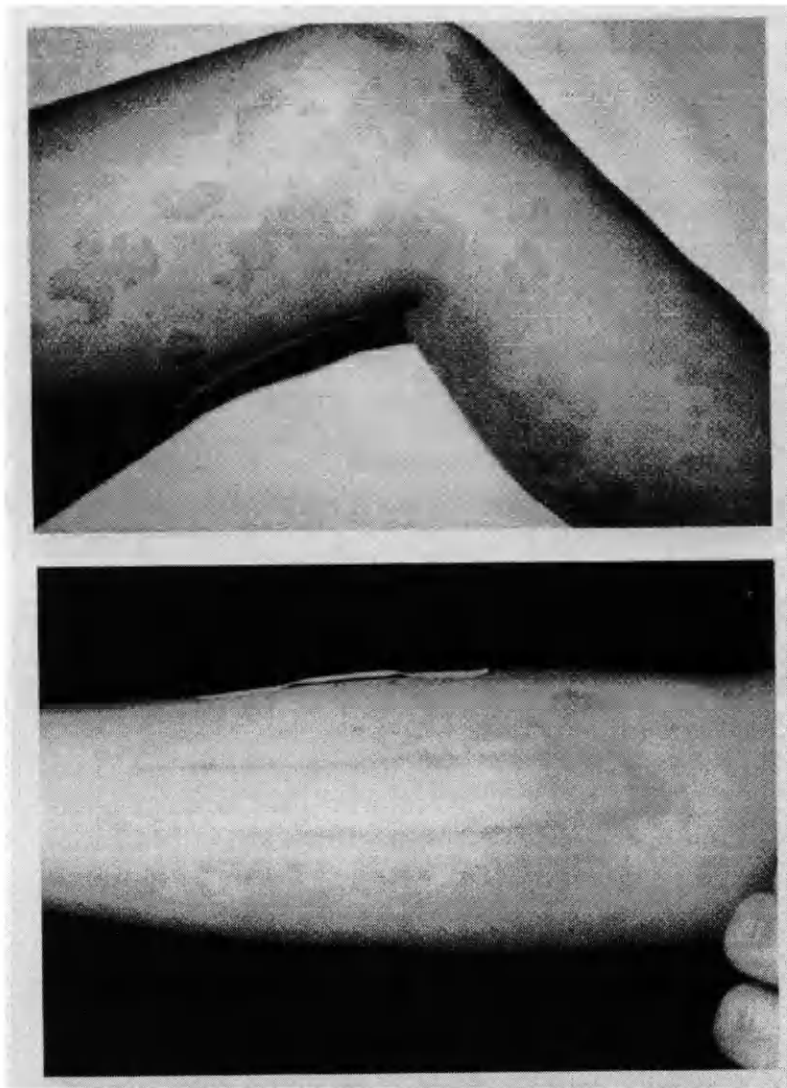


Figure B9  
 From: NEJM page 183, Figure 1

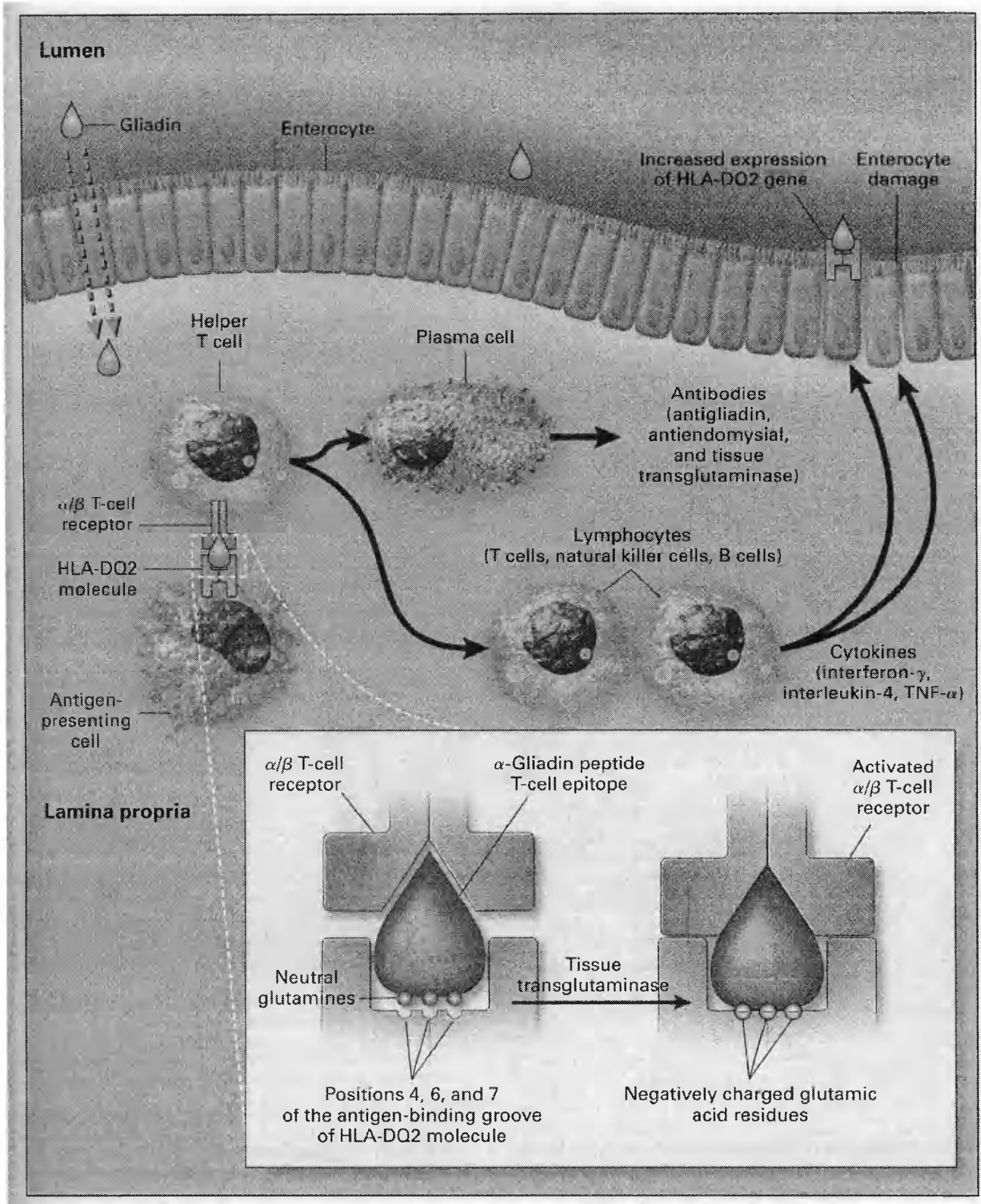




Figure B10  
From: NEJM page 193, Figure 2

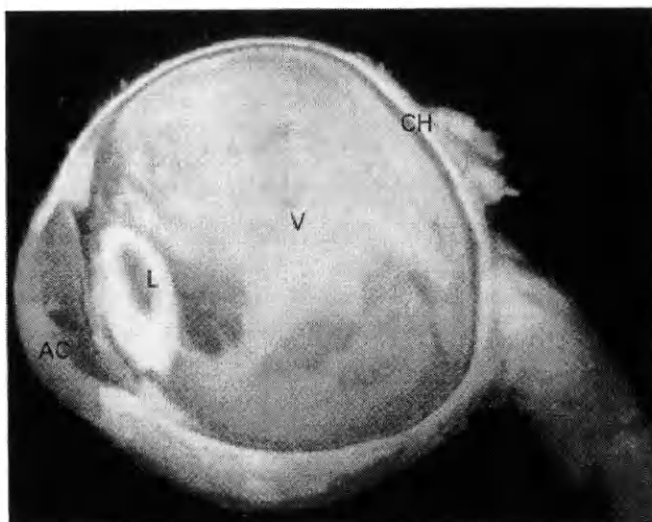
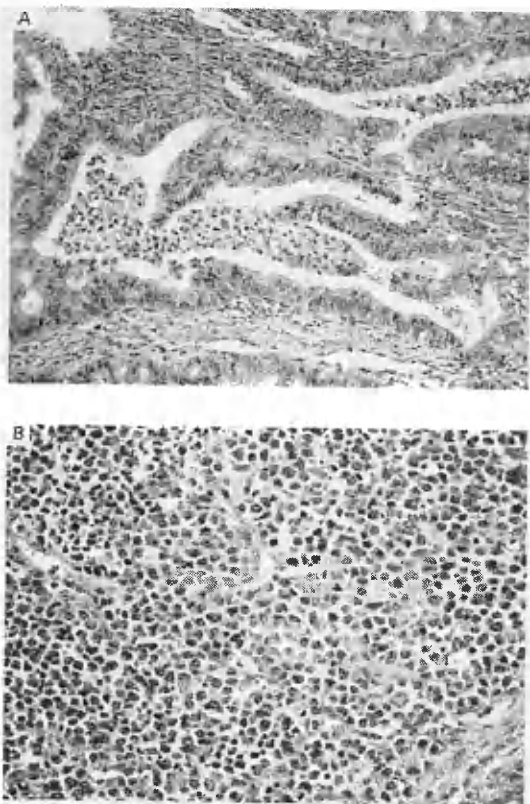


Figure B11  
From: NEJM page 193, Figure 1



## **Appendix C**

### **Article Topics and Formats**

In order to understand how metaphor appears in medical language, it is important to take into account the topic and the format of each individual article in the journals. These two tables outline the body topics of the articles in all the journal issues reviewed in this thesis, as well as the formats of the articles in the journals. These two variables have some effect on how the body is represented metaphorically in any given article. However, the general themes of metaphors were found throughout the issues I reviewed, making them essentially universal for each of the two journals. Table One lists the number of articles for a set of generalized body topics found in each journal. Table Two offers the same calculation according to generalized article format. It is important to keep in mind that, because there were four times more issues of the NEJM included in the study, the numbers for this journal will be elevated. These tables offer an opportunity for readers to get an overall sense of the kinds of information found in each journal, as well as the ways in which this information is presented in the journals.

**TABLE ONE**

<b>ATHM</b>	<b>NEJM</b>	<b>ARTICLE TOPIC</b>
9	11	Psychological/Behavioral
3	12	Immunological/Allergies
3	14	Gastro-intestinal/Nutrition
6	40	Cancer
3	16	Reproductive/Hormonal
6	19	Musculoskeletal
3	28	Nervous/Sensory
6	121	Cardio-respiratory/Pulmonary
1	12	Dermatological
0	13	Renal
2	47	Infection/Injury/Disease-centered
0	14	Cellular
4	16	Wellness/Systemic
29	69	Professional/Administrative/Medical Ethics

**TABLE TWO**

<b>ATHM</b>	<b>NEJM</b>	<b>ARTICLE FORMAT</b>
32	93	Research Articles/Abstracts
9	55	Case Studies
18	16	Professional/Educational/News Sections
18	8	Medical Commentary/Interview
8	48	Editorials
6	24	Letters to the Editor Sections
6	24	Book Review Sections

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