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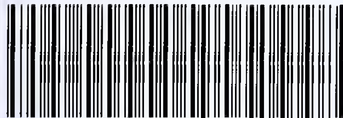

POWER AND MYSTICISM IN THE INTRODUCTION OF ANESTHESIA IN NINETEENTH CENTURY AMERICA

Naomi Strachan Donnelley

Yale University

1998

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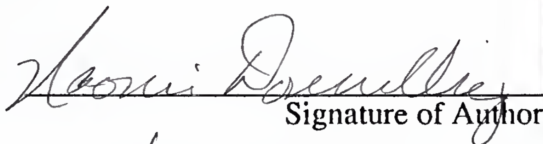

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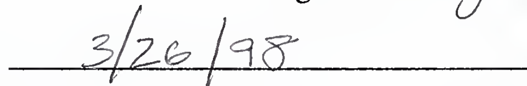

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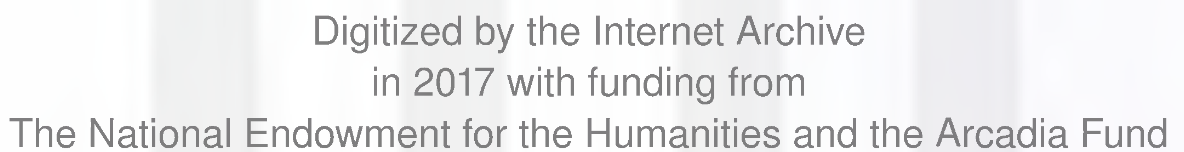
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Power and Mysticism in the Introduction of Anesthesia in Nineteenth Century America

A Thesis Submitted to the
Yale University School of Medicine
in Partial Fulfillment of the Requirements for the
Degree of Doctor of Medicine

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POWER AND MYSTICISM IN THE INTRODUCTION OF ANESTHESIA IN NINETEENTH CENTURY AMERICA

Naomi Donnelley
Sponsored by Maria Trumpler, Ph.D., Department of the History of Medicine
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The introduction of the inhalational anesthetics to surgery in nineteenth century America revolutionized the treatment of pain. It promised relief from the horror of experiencing every movement of the surgeon's knife. Beyond pain relief, however, what was anesthesia's legacy to the American medical profession? Anesthesia was a new tool in the medical arsenal that possessed the luster of science, and at the same time, possessed ill-defined mystical qualities - ether, chloroform and nitrous oxide could induce an artificial death from which patients could be "resurrected". In this thesis, I argue that anesthesia's marriage of technology and mysticism had an enormous transformative power that helped redirect the medical profession and change the nature of the doctor-patient relationship. In support of my argument, I examined both medical and lay responses to the anesthetics, paying careful attention to the emotional, cultural and philosophical concerns the new anesthetics raised. As wielders of the mystically and symbolically charged new tool, doctors were forced to address not only the scientific, but also the metaphysical implications of the anesthetics. They became philosophers and moral and social caretakers, as well as physical healers. As their authority expanded, so did their confidence and prestige.

Acknowledgements

I would like to thank Yale University for their grant supporting my research in the summer of 1995. I also express my gratitude to the entire staff of the Section of The History of Medicine and Yale University's Medical Historical Library, especially head librarian Toby Appel, for all of their help in searching for nineteenth century journals and medical literature in the library's archives. A special thanks to all of my friends and family who patiently listened to my ideas and my anxieties as I wrote this thesis. Above all, I would like to thank my thesis advisor, Maria Trumpler, Ph.D. of The Section of The History of Medicine, for her invaluable advice and support.

Methods

My initial research was based at Yale University's Medical Historical Library. I looked at the works of historians Alex Berman, Gert Brieger, Charles Rosenberg, Richard Shryock, and Martin S. Pernick, among others, to learn more about the state of the medical profession in America before, during, and after the introduction of anesthesia in 1846. Several of these scholars, as well as historians Thomas Keys and René Fulop-Miller, dealt specifically with the introduction of anesthesia. After my review of the secondary literature, I examined medical periodicals of the day, from the initial use of anesthesia in 1846, until later in the century, to learn about the medical profession's reaction to the new inhalational anesthetics. The Boston Medical and Surgical Journal was an important resource, as the initial uses of the anesthetics took place in New England. Several doctors of the nineteenth century wrote more extensively on anesthesia and its implications for the medical profession, including: Valentine Mott, David Cheever, Dr. Channing, Worthington Hooker, John Hilton and John Collins Warren. The public's perceptions of anesthesia and the medical profession were more difficult to find. I reviewed popular periodicals of the day from the collections at Sterling Memorial Library, including The New Englander, Harper's, Popular Science Monthly, Littel's Living Age and Putnam's Monthly Magazines. Popular authors and poets of the nineteenth century provided rich resources, including: Catherine Beecher, Louisa May Alcott, Emily Dickinson and William Blake. For my analysis of the mysticism, symbolism and power

dynamics involved with the introduction of anesthesia, I studied and applied the anthropological theories of cultural anthropologists Mary Douglas, Claude Levi-Strauss, René Fulop-Miller, Henry Sigerist and Robert Hahn, among others.

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I. Introduction

Pain is a universal, fundamental human experience. Some people stoically face pain but many go to great lengths to seek relief. Historical, social and cultural mores shape responses to pain and pain management, but also the experience of pain itself shapes history. When the inhalational anesthetics were first used publicly in a surgical operation on October 16, 1846 at the Massachusetts General Hospital in Boston, a new era was launched in the treatment of pain. More importantly, a new era was launched in the institution of medicine. Anesthesia was a new tool in the medical arsenal that possessed both the luster of science, and, at the same time, possessed ill-defined, mystical qualities. In this thesis, I will argue that anesthesia's marriage of technology and mysticism had an enormous transformative power that helped redirect the American medical profession and change the nature of the doctor-patient relationship.

The new inhalational anesthetics - ether, nitrous oxide, and chloroform - sparked a tremendous debate in the world of American medicine. This debate initially centered on who discovered medicine's new tool in the war against surgical suffering. Was it William Morton who should get the credit, or should Charles Jackson, Horace Wells or Crawford Long get the honors? Soon the medical world and the consumers of medicine, the American people, were confronted with a much more monumental debate - what is the nature and purpose of pain and suffering, and what should the doctor's role be in his suffering patients' lives. Doctors

and laypeople of the nineteenth century may not have recognized it at the time, but the introduction of anesthesia, with all of its problems and questions, served as a vehicle to help redefine and reconfigure the "regular" medical profession at a time when it was in dire straits. Anesthesia helped bring the so called "regular" traditional practitioners together around a specific issue at a low point in American medical history. Historian Gert Brieger describes the chaotic state of the profession in the middle of the nineteenth century in the following way:

> In America in the middle of the nineteenth century medicine was frequently subjected to bitter denunciation and ridicule. It was a period in which the profession began more and more to examine its position in society, its internal relations, and its doctrines of disease and therapy. The medical journals of the late 1850's and the 1860's are filled with articles which ask whether medicine is a science, whether there is any certainty in medicine, what the relations of the public should be to the doctor, and what the doctor's relation should be to his colleagues.[1]

In this period of medical doubt, turmoil and soul searching, the introduction of anesthesia brought up many of the fundamental questions that Brieger describes. It forced medicine to confront basic and uncomfortable questions about pain, pain control, and the nature of therapeutics in general.

Prior to the introduction of anesthesia, the medical arsenal against pain was limited to some opiates, alcohol, attempts at hypnosis, and the long-standing stoical method of simply putting up with pain. Since medicine had hitherto been able to do little about suffering, people often dealt with it themselves, with their families, or with religious leaders and other non-

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[1] Gert H. Brieger, "Therapeutic conflicts and the American Medical Profession in the 1860's", Bulletin of the History of Medicine 41 (1976): 215.

traditional healers (those referred to as "quacks" by their more traditional colleagues). Pain and pain relief did not have a clearly defined place in the institution of medicine. If, traditionally, pain was primarily the concern and responsibility of the individual sufferer, the introduction of anesthesia made pain more of a social concern - medicine began to treat pain on an institutional level.

Anesthesia forced doctors not only to deal with the technical aspects of pain relief - i.e., how they were going to administer the anesthetics and what their chemical compositions would be - but also to deal with the emotional and social issues surrounding "suffering", in a more formal and serious way than before. Pain is not only an organic or technical problem, it is also an existential and metaphysical one. Doctors, therefore, had to address these issues as well as the physical ones. To use an expression of historian Martin S. Pernick, anesthesia helped bring about the "medicalization of suffering"[2].

I believe that the most important questions that anesthesia exposed to the medical profession and forced into debate were the following: What were the goals of the medical profession - how much "curing" and how much "caring" were doctors to do? What was the nature of the doctor's domain and authority; *should* doctors have the power, which the new anesthetics afforded them, to induce a death-like state and then "resurrect" their patients? Where

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[2] Martin S. Pernick, A Calculus of Suffering: Pain, Professionalism and Anesthesia in Nineteenth Century America (New York: Columbia University Press, 1985), 233.

would medicine come down in the art vs. nature debate; to what extent would medicine decide to interfere with nature's processes, and how did anesthesia fit in with, and change, the art vs. nature debate? What was the nature of the doctor-patient relationship; how much authority should the doctor have, and to what extent should he play a role in his patients' lives? More specifically, since the implications of suffering and treating suffering extend way beyond the scientific to social, cultural and philosophical concerns, did the doctor's authority extend into these non-scientific domains as well?

Experiences and phenomena in life that are unfamiliar and undefined are often uncomfortable. I think an important key to understanding anesthesia's impact on medicine is to focus on its ambiguous and mysterious qualities, and to consider the discomfort and awe these inspired in both doctors and patients. To help clarify what I mean by ambiguity, consider the analogy of a baby that is born with ambiguous genitalia. We are faced with enormous discomfort as we try to decide what this new human being *is*, and how it should be raised - as a male or a female. We are also intrigued by this mystery. Unless ambiguities like this one are ignored, individuals and the society as a whole must take them in and deal with them - discuss them, come to some sort of resolution about them, and fit them into their existing ethos and structure. We must decide what we are going to do with this new infant. We must place it in a category that we are comfortable dealing with, and one in which the baby can grow up with the least amount of physical and

psychological trauma. This involves readjusting our categories of male and female. Although a very different phenomenon than gender ambiguity, anesthesia, with its problems and implications, presented nineteenth century American medicine with something both unknown and uncomfortable, but at the same time awe inspiring.

Anthropologists Mary Douglas and Claude Levi-Strauss studied the power of ambiguous and undefined phenomena to shed light on the existing, defined order. They argue that through the process of assimilating the ambiguous and uncomfortable, the existing order is redefined. I believe their notions of pollution and ambiguity provide a powerful framework for examining and understanding the importance of the introduction of anesthesia to the medical world. Anesthesia was an innovation of chemistry and biological science that could induce unconsciousness and render a patient insensate. Wedded to the science was tremendous mystery and metaphysical significance that imbued anesthesia with symbolic power; no one understood the precise mechanism of the new anesthetics, and never before had an agent existed in the medical arsenal that could induce a sort of temporary death from which the patient could be resuscitated. The marriage of science and mysticism in anesthesia was at the root of anesthesia's ambiguity and its power to help transform individual relationships between doctors and patients, and transform the medical profession as a whole. Individual doctors gained more authority and commanded more respect in their

relationships with patients. And, ultimately, the medical profession as a whole gained more power and prestige.

The transformative power of anesthesia was compounded by the timing of its introduction during a volatile and liminal phase in the world of medicine. The atmosphere was ripe for change. Catherine Beecher, an author and social commentator of the day, eloquently described her feelings about this uncertain, but exciting and hopeful, atmosphere in medicine:

> In the first place, [I have] a great respect for the profession as including a large amount of talent, cultivation, noble feelings, and high moral principle. In the next place, a conviction that the present is a period of fermentation, transition, and uncertainty, such as has never before existed; such as finds its counterpart, perhaps, only in the theological world. It would seem as if all the principles and facts of past experience were in a state of effervescence preparatory to new and more beneficent crystallization.[3]

Beecher was not entirely optimistic about this liminal phase in American medicine. She was one among many who had concerns about the medical profession in the mid-nineteenth century. Historian Richard Shryock argues that the status of the physician did not significantly improve until 1900. He mentions that although it is hard to find sources of the patients' perspective of doctors, periodicals in the 1840s and 1850s sometimes "ridiculed medical students and medical practice". For example, the newspaper, The Philadelphia Item denounced in 1858 the "poisoning and surgical butchery which were common in practice"[4]. The reasons that

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[3] Catherine Beecher, Letters to the People on Health and Happiness (New York: Harper, 1855), 138.
[4] Richard Shryock, Medicine in America: Historical Essays (Baltimore: Johns Hopkins Press, 1966), 150-151.

Shryock outlines for the negative reputation of medicine include mediocre medical education and standards, competition amongst physicians, and the difficulties of trying to reconcile being a "social benefactor" with being a businessman.[5] Shryock has valid arguments; however, it might be more helpful to look at changes in the medical profession on a more philosophical and anthropological level. American medicine certainly was in a state of relative chaos and great transition in the nineteenth century. Further, any fundamental change in therapeutic philosophy takes a great deal of time. The seeds for change in medicine were planted to a great degree by anesthesia, but then the change to a more caring and powerful institution occurred slowly over many years. Many negative attitudes towards doctors persisted into the 1850s and beyond. This should not be seen as a failure of anesthesia to produce more confident and caring doctors or as evidence of a weak and disrespected medical profession.

II. The State of Medicine in America at the time of Anesthesia's Introduction

At the time of anesthesia's introduction in nineteenth century America, a cohesive, organized profession did not exist. Individual practitioners vied for patients, and had little to do with their medical colleagues. At the time, it was difficult to identify medicine as a discrete institution. Historian Leroy Vandam called it a time of "frontier medicine" in America, when the general practitioner reigned, medical education was

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[5] Ibid, p.154-162

unregulated and varied in quality, and when medicine was very much a business. In contrast to earlier salaried medical services, medicine had shifted to a competitive system of private practice. There had also been a shift in emphasis from research to clinically based medicine, where empirical evidence rather than theoretical speculation guided medical treatment. The so called "regular" practitioners of traditional Western medicine did not dominate the profession.[6] The American public often sought cults, religious healers and "non-traditional" secular practitioners for care. Many of these practitioners urged their patients to avoid "regular" doctors, and their therapies often focused on hygiene, herbal remedies and behavior modification.[7]

Medical sectarianism reached its pinnacle in the middle of the nineteenth century, around the time of anesthesia's introduction. Homeopathy was popular, and several homeopathic schools were established, such as Hahnemann Medical College, founded in Pennsylvania in 1848. As historian Richard Shryock points out, the non-traditional practitioners "condemned regular medicine as futile and dangerous."[8] While non-traditional remedies were often not efficacious, they were at least perceived as being less painful and harmful than many traditional medical

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[6] Leroy D. Vandam, MD. "Early American Anesthetists: the Origins of Professionalism in Anesthesia," Anesthesiology, 38 No.3 (March 1973): 268.
[7] Richard H. Shryock, Medicine and Society in America (New York: New York University Press, 1960), 122.
[8] Ibid., p.146.

practices, such as blood-letting and purging.[9] In this context of disorder and experimentation in medicine, where dissatisfaction with traditional therapeutics was rampant, the time was ripe for the introduction of an innovative but mysterious tool like anesthesia.

The individual relationships between doctors and their patients were also in a weak and precarious state at the time of anesthesia's introduction. Of course there were some patients who maintained very close and trusting relationships with their doctors, but many people had little faith in medical practitioners. As Shryock points out, " If one may judge by the rareness of gifts to physicians or medical schools,...there was no inclination to look upon medical men as saviors of mankind."[10] Quackery was at its high point in mid nineteenth century America, and patents abounded for lucrative yet dubious cures and treatments. Periodicals were filled with these so called "miracle cures".[11] Regular practitioners likely undermined their own respect and authority when they frequently denounced these new remedies. The public wondered how a profession that was not itself offering many helpful remedies could dismiss new options so readily. We see a general critique of "regular" medicine's conservatism and narrow-mindedness in the article "Medical Etiquette" from a popular literary, scientific, and educational periodical of the day, The Nation:

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[9] Charles E. Rosenberg, "The Therapuetic Revolution: Medicine, Meaning and Social Change in Nineteenth Century America", in Essays in the Social History of American Medicine, eds. Morris J. Vogel and Charles E. Rosenberg (USA: The University of Pennsylvania Press, 1979), 5.
[10] Shryock, Medicine and Society in America, 122.
[11] Ibid., 143.

> If the associated doctors would but give a little less heed to matters of etiquette, be less fearful of compromising the professional dignity, and employ whatever of time or money they can control in collating and consolidating the vast amount of undigested wisdom with which the now chaotic annals of their art are filled; or if they would but labor systematically in either of the departments of science upon which that art depends, they would themselves see certain ideas in a very different light. They would quickly do away with a multitude of restrictions which, though now carried as armor, serve only to hamper the movements and cripple the power of the profession, without, in reality, affording it the slightest protection.[12]

People wanted medicine that worked, whether "traditional" or not, and hoped that doctors could look beyond the limits of their profession to incorporate the best of the "non-medical"therapies into the *Materia Medica* of regular medicine. Anesthesia, with its hint of voodoo - its mystical power to put people into a death-like trance where they were free from pain - was a welcome innovation.

Underscoring the lack of cohesion, power and respect in the medical profession in nineteenth century America was the paucity of professional regulation of medical education and licensing at the time.[13] With the establishment of the American Medical Association in 1847, the profession attempted to control and improve medical education, and to codify professional standards and ethics. The ensuing increase in medicine's power and prestige was significant but was a relatively slow process. The establishment of the AMA coincided with the discovery of the new inhalational anesthetics, and one of the major topics at the AMA's first meeting was the new anesthetics. Concerns about the uses and abuses of these

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[12] "Medical Etiquette", The Nation, 3 (August 1866): 95.

new agents helped bring medical practitioners together, to reflect upon and reorganize the structure of the medical profession.

One of the greatest dilemmas that medicine faced in the nineteenth century, and indeed continues to face today, was whether its primary goal would be to "cure" people or "care" for them. Medicine has always encompassed both, but on the cure vs. care continuum, it has leaned more towards one or the other at different points in history. Shryock maintains that on the whole, the "subjective factors in illness" -- i.e. the patient's psychic and emotional well-being -- received less attention in nineteenth century America than at other times:

> Insofar as staff members responded to the "best medicine of the day", they were inclined to see "cases" rather than human personalities in the course of their rounds. The subjective factors in illness, except perhaps in mental illness, received less attention by clinicians during the Nineteenth Century than in any other period before or after.[14]

We must remember, however, that Shryock is referring to hospital care in nineteenth century America, and while many of the poorest people received their care in a growing number of hospitals[15], the majority of people still received more 'personal' home care. Nineteenth century American medicine may have been more concerned with caring for its patients than Shryock imagined. Anesthesia in many ways planted the seeds for a shift to a more 'care'-minded mentality in the medical profession. What is important to remember, is that a new emphasis on caring rather than simply curing did

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[13] Ibid., 146.
[14] Shryock, Medicine and Society in America, 159.
[15] Ibid., 158.

not happen overnight. It was an evolution, not a revolution, brought about, in part, by the discovery and use of the new inhalational anesthetics.

Coincident with a greater focus on caring in the medical profession was the rapid growth of surgery in America. New, more aggressive surgical procedures, and a greater number of procedures, were performed[16]. What might at first seem to be a paradoxical relationship between a new emphasis on caring and the introduction of more invasive surgeries, was actually a complementary one. Anesthesia played a significant role in this symbiotic relationship. Not only did it destroy surgical pain, but it also seemed to reduce surgical shock, and facilitate longer, more dangerous surgeries. Dr. Valentine Mott heralded anesthesia's advantages to the physician, as well as its ability to extend the domain of surgery:

> How often, when operating in some deep, dark wound, along the course of some great vein, with thin walls, alternately distended and flaccid with the vital current - how often have I dreaded that some unfortunate struggle of the patient would deviate the knife a little from its proper course, and that I, who fain would be the deliverer, should involuntarily become the executioner, seeing my patient perish in my hands by the most appalling form of death! Had he been insensible, I should have felt no alarm...This discovery, then, has not only taken from surgery its greatest horrors, but it has also very much increased the facility and safety of operations; and in this way, the domain of surgery is extended...[the surgeon] is free to assert the dominion of the knife wherever science has decreed and the powers of human constitution will allow.[17]

The greater number of surgeries in turn increased the number of opportunities for doctors to become familiar with and accept the new anesthetics.

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[16] Vandam, "Early American Anesthetists", 264.

Before I focus on the complex reactions to the introduction of anesthesia, it is important to be aware of the two "opposing" therapeutic ideologies that hovered in the background of American medicine at the time. There were two basic philosophies - heroic medicine and therapeutic nihilism. Heroic medicine's basic tenent involved trying any medication or procedure that produced some tangible, and hopefully beneficial, effect in the patient. In the age old art vs. nature debate, Heroicists believed in the power of the medical arts to change the course of natural disease processes. Therapeutic nihilism's basic tenent was to focus on the search for causes of disease rather than to treat symptoms aggressively and randomly. Its supporters believed the doctor's role should be a more passive one. The human organism has enormous powers of self-healing and the doctor's role should be to optimize these powers and to minimize interference with the natural healing process. For example, the nineteenth century physician O.W. Holmes represented this side of the debate in 1860 in an "Address delivered before the Massachusetts Medical Society". He believed that medicine's progress lay in the search for causes, rather than in an endless search for remedies and cures:

> The community is still overdosed...Part of the blame of over-medication must, I fear, rest with the profession, for yielding to the tendency of self-delusion, which seems inseparable from the practice of art and healing. I need only touch on the common modes of misunderstanding or misapplying the evidence of nature...The causes of disease, in the meantime, have been less earnestly studied in the eagerness of the search for remedies...Causes,

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[17] Valentine Mott, Pain and Anesthetics, 2d ed. (Washington D.C.: McGill & Witherow, 1863), 12.

> causes, and again causes - more and more we fall back on these as the chief objects of our attention.[18]

Holmes alluded to the fundamental debate of art vs. nature. He argued that medicine is largely noxious and unhelpful to the human organism, and believed that the really awful diseases were nature's sign of "incapacity for life". Medicine should not try to reverse nature's "decree or will". This was a very Darwinian notion that placed medicine's role decidedly on the nature side of the debate.

What have historians concluded about the philosophical atmosphere that existed in medicine at the time when anesthesia was introduced? Charles Rosenberg[19] and Richard Shryock[20] describe a profession that had reached a sort of middle ground in therapeutics, between heroicism and nihilism. This is echoed by historian Alex Berman, who argues that heroic medicine saw a slow decline in nineteenth century medicine, and that "by 1860, the worst features of the heroic practice had disappeared"[21]. Martin Pernick, a historian who is especially interested in anesthesia's place in the therapeutic philosophy of nineteenth century American medicine, describes a kind of conservative synthesis in which physicians were guided by practicality in their therapeutic decisions:

> The new doctrines of conservative medicine thus served to legitimate the use of anesthetics for both suffering and pain, by both orthodox and

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[18] O.W. Holmes, "An Address delivered before the Massachusetts Medical Society, 1860", in Currents and Countercurrents in Medical Science: Medical Essays (Boston: J.R. Osgood, 1878), 184 & 195.

[19] Rosenberg, "The Therapeutic Revolution", 16-18.

[20] Shryock, Medicine in America, 17.

[21] Alex Berman, "The Heroic Approach in Nineteenth Century Therapeutics", in Sickness and Health in America, eds. Waltzer et al. (Madison: University of Wisconsin Press, 1978) 79.

> sectarian healers. In this new version of professional duty, a doctor's choice between the pros and cons of anesthesia depended, not on the distinction between Art and Nature, but on a synthetic, utilitarian measurement of the "lesser evil" - a calculus of suffering.[22]

American practicality in medicine may have played a significant role in anesthesia's acceptance. I think, however, it is crucial to examine America's philosophical and anthropological responses to pain in the nineteenth century to truly understand why anesthesia was controversial, yet ultimately accepted, and to understand how anesthesia helped redefine American medicine. The complexity of pain, and the complexity of anesthesia pushed Americans beyond the realms of utility and practicality. They entered a realm where fundamental questions about medical therapy, and fundamental questions about life, caught their attention.

III. The Universality of Pain and the Reconfiguration of the Pain Question in Nineteenth Century America

All humans suffer. Therefore, the anthropological and philosophical power of pain is enormous. Medical anthropologist Henry Sigerist emphasizes that physical suffering is only one component of illness. Beyond the discomfort is the heightened awareness of our own weaknesses and our own mortality:

> To be ill means to suffer - to suffer in a two-fold sense. To suffer means to be passive. The sick man is cut off from the active life to the extent that he is even unable to procure his own food. He is literally helpless and is assigned to the care of other persons...But to suffer also means to feel discomfort. Every disease has a certain amount of discomfort

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[22] Pernick, A Calculus of Suffering, 122.

> connected with it, which varies in intensity, from individual to individual and from disease to disease. This discomfort is termed pain...Pain sometimes becomes fear - even that greatest of all fears, the fear of death. Every serious illness is a reminder of death, *memento mori.* Disease breaks the rhythm of life and places a boundary to human existence...Disease likewise forces us to recognize the place of destiny in our lives. It activates our spiritual sensitivity. It directs our gaze toward the eternal.[23]

There is variety in how individuals and cultures approach the problem of pain, but the same issues and questions are there, even if some of the answers are different. Contemporary American anthropologists B. Berthold Wolff and Sarah Longeley studied "Cultural factors and the Response to Pain" and concluded that there is no clear evidence of different responses to pain (what they termed "pain sensation"). There is a difference, however, in cultural attitudes towards pain which lead to different "pain reactions" in different ethnocultural groups. For example, while "Old Americans" tend to exhibit little emotional reaction to pain when they report pain, Italian patients tend to have an immediate and emotional response to pain and seek treatment more quickly.[24]

Specifically, in America, there *was* a strong cultural and traditional response to pain that went hand in hand with American "toughness", heroicism, and the courageous, frontier spirit. Benjamin Rush was one doctor who relished his painful medical tools -- his hot irons and his blood-letting. In his mind, Americans were the tough ones, the survivors whose

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[23] Henry E. Sigerist, "The Special Position of the Sick", originally published in 1929, reprinted in Culture, Disease, and Healing: Studies in Medical Anthropology (New York: Macmillan Publishing, 1977), 389.

tolerance for suffering was a significant source of their quick and powerful success in the New World. Historian Pernick describes his approach:

> A skilled propagandist, Rush promoted his therapies in part by convincing practitioners and patients alike that they were 'heroic', 'bold', 'courageous', 'manly' and 'patriotic'. Americans were tougher than Europeans; American diseases were correspondingly tougher than mild European diseases; to cure Americans would require uniquely painful doses administered by heroic American physicians.[25]

Not all Americans believed in a uniquely American toughness, and an ability or even willingness to endure pain. Dr. Valentine Mott, a nineteenth century New York physician believed in the great equalizing power of pain -- all people suffer at its hands. According to Mott, the only humane response to pain was to relieve it. He was, not surprisingly, a vehement supporter of the use of surgical anesthetics:

> As in a powerful engine when the director turns some little key, and the monster is at once aroused, and plunges along the pathway, screaming and breathing forth flames in the majesty of his power, so the hero of a hundred battles, if perchance a filament of nerve is compressed, is seized with spasms, and struggles to escape the unendurable agony. We have then, this, the first reason for the use of anesthetics: - To prevent pain is humane...Even the guillotine had its conception in a kind of humane sentiment. Only savages inflict upon their victims the horrors of torture. And I do not believe there is a surgeon of the Nineteenth Century who would willingly inflict unnecessary pain in his operations...[26]

Another champion of surgical anesthesia in nineteenth century America, Dr. David Cheever, based his arguments on the universal, fundamental human dread of pain and the doctor's obligation to minimize it:

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[24] B. Berthold Wolff and Sarah Langeley, "Cultural Factors and the Response to Pain", in Culture, Disease, and Healing: Studies in Medical Anthropology, 318.
[25] Pernick. A Calculus of Suffering, 108.
[26] Mott, Pain and Anesthetics, 1&6.

> In proportion as anticipation is worse than reality, must be estimated the mental relief brought about by anesthesia. To dread the knife, to shrink from an operation, to fear pain - is there a more universal instinct? It is next to the vital instinct of self-preservation. What iron will, what previous agony, must induce that fortitude which can bring the sufferer to lie down and be cut without stirring! All this is annulled by anesthesia. How much mental shock is thus removed![27]

The power of pain to elicit strong reactions and philosophical reflection was also seen in lay-person responses to pain in nineteenth century America. As the consumers of medicine, patients and their concerns about pain forced the medical profession to deal with the pain question in a more systematic and sensitive way than ever before. Although a doctor, Silas Weir Mitchell wrote as a poet, a social commentator, a historian, and from the perspective of a patient in his poem, "The Birth and Death of Pain". He discussed pain's ubiquity, and science's initial inadequate response to pain, especially in the case of surgical pain. His poem can be seen both as a cry to the medical profession to take more responsibility for pain, and also as a celebration of those physicians who used surgical anesthetics to bring about the "Death of Pain":

> The Birth of Pain! Let Centuries role away;
> Come back with me to nature's primal day.
> What mighty forces pledged the dust to life!
> What awful will decreed its silent strife!...
> This, none shall 'scape, who share our human fates,
> One stern democracy of anguish waits
> By poor men's cots - within rich men's gates.
> What purpose hath it? Nay, the question is vain.
> Earth has no answer: If the baffled brain
> Cries, 'tis to warn, to punish - Ah, refrain!

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[27] David Cheever, "What has anesthesia done for surgery" from the Anesthesia Semi-Centennial Celebration at the Massachusetts General Hospital in 1896, pamphlet in the Anesthesia Collection of Yale University's Medical Historical Library, 41.

When writhes the child, beneath the surgeon's hand,
what soul shall hope that pain to understand?
Lo, Science falters o'er the hopeless task:
And love and Faith in vain an answer ask,
When thrilling nerves demand what good is wrought,
Where torture clogs the very source of thought.

And, writing on anesthesia, Mitchell celebrated the discovery with a mixture of awe and reverence:

What Angel bore the Christ-like gift inspired!
What love divine the noblest courage fired
One eager soul that paid in bitter tears
For the glad helping of unnumbered fears...
What triumph still shall hold the mind,
Whatever gift shall yet enrich mankind,
Ah! here, no hour shall strike through all the years,
No hour as sweet, as when hope, doubt and fears,
'Mid deepening stillness, watched one eager brain,
With God-like will, decree the Death of Pain.[28]

Mitchell was likely influenced by the nineteenth century Romantic movement in arts and literature which focused attention on pain and suffering, and gave renewed vigor to 'caring' in the medical profession. This may have facilitated anesthesia's acceptance among doctors and their patients. Although Romantic poets like Emily Dickinson and William Blake at times seemed to relish and glorify suffering, their works were also often painful cries for relief.

Emily Dickinson, spoke about the fundamental human desire in life for pleasure. If that could not be attained, then humans strove to minimize pain. Dickinson's notion transcends physical pain to include psychic and

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[28] Silas Weir Mitchell, "The Birth and Death of Pain", a poem read at the Fiftieth anniversary of the First Public Demonstration of Surgical Anesthesia in Boston, Massachusetts General Hospital, a pamphlet from the Anesthesia Collection of Yale University's Medical Historical Library, 77-82.

spiritual pain, but it does include physical suffering. In her poem "The Heart asks Pleasure - first" she asks for "Anodynes" - remedies that relieve pain:

> The Heart asks pleasure - first -
> And then - Excuse from Pain -
> And then - those little Anodynes
> That deaden suffering -[29]

Dickinson expands on her own preoccupation with pain and suffering to suggest that pain is an all consuming facet of life in "Pain - has an Element of Blank -":

> Pain - has an Element of Blank -
> It cannot recollect
> When it begun - or if there were
> A time when it was not -
>
> It has no Future - but itself -
> Its infinite contain
> Its Past - enlightened to perceive
> New Periods - of Pain[30]

The significance of pain and pain control in the lay-person's eye, and the demand for the medical profession to pay more attention to pain issues, was seen in the extensive demand for pain remedies (as well as other medicines) in nineteenth century America. In an 1852 address, Dr. Worthington Hooker, a professor of medicine at Yale University, bemoaned the pressure the public placed on doctors to give them new therapies:

> The use of every new remedy or measure is more free and extensive at first, than it is after the profession have become thoroughly experienced in its application. A few exercise the requisite caution, but the great mass do not. And the evil is increased by popular clamor.

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[29] Emily Dickinson, Poem #536 c. 1862 in The Complete Poems of Emily Dickinson (Boston: Little, Brown and Company, 1960).

[30] Ibid., poem #650.

> The people demand of physicians the immediate and full use of new things...[31]

The great demand placed on alternative remedies and healers in the first half of the nineteenth century was evidence of the public demand for whatever worked to heal their pains. If the traditional 'regular' doctors did not have a remedy for what ailed them, the public looked elsewhere. Pain is a powerful motivator. Historian Edward Shorter describes this nineteenth century fascination with alternative remedies:

> That almost all of this lore was hokum is unimportant. What interests us here is that traditional patients turned to these plants as an alternative to the doctor. And often when desperation drove them to a medical consultation, it was not the doctor's curing hand they sought, not his rich medical knowledge or his skilled procedures. They sought out the doctor because he was a conduit to drugs...drugs they thought "really worked", drugs that would agitate and shake the body and thus, they hoped, provide relief.[32]

Although patients often turned from regular practitioners to alternative healers and religious leaders for comfort, or else suffered silently in the stoic tradition, there was still a sense that doctors should take more responsibility for pain. The basic premise of medicine was, after all, to help the sick and suffering. Before anesthesia and other sophisticated methods of pain control had firm places in the medical armament, a frustrated and suffering public often found their doctors' response to pain inadequate. Louisa may Alcott, an important author of the day who spent a great amount of time in war-time infirmaries, was often unimpressed with the medical

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[31] "The Present Mental Attitude and Tendencies of the Medical Profession", Inaugural Address of Dr. Worthington Hooker, Professor of Theory and Practice of Medicine in the Medical School of Yale College. The New Englander 10 (1852): 548.

profession's approach to pain. She believed that quite a few surgeons looked at patients as diseases rather than persons. In the following sketch she wrote about Dr. P, a man who was hardened to suffering:

> But this must not lead anyone to suppose that the surgeons were willfully hard and cruel, though one of them remorsefully confided to me that he feared his profession blunted his sensibilities, and perhaps, rendered him indifferent to the sight of pain...I am inclined to think that in some cases it does; for though a capitol surgeon and kindly man, Dr. P, through long acquaintance with many of the ills flesh is heir to, had acquired a somewhat trying habit of regarding a man and his wounds as separate institutions, and seemed rather annoyed that the former should express any opinion on the latter, or claim any right in it, while under his care. He had a way of twitching off a bandage, and giving a limb a comprehensive sort of clutch, which, though no doubt entirely scientific, was rather startling than soothing, and highly objectionable as a means of preparing nerves for any fresh trial.[33]

Louisa May Alcott wrote these comments after anesthesia's introduction, but still while the debate over their use was raging. During the civil war and really until the end of the nineteenth century, use of anesthesia in surgery was inconsistent and up to the discretion of individual practitioners.[34]

Numerous other authors and thinkers of the day were also preoccupied with pain, especially with the most dramatic example of pain, surgical pain. Many a poet found both surgery, and the doctors who performed it, to be fearsome creatures. In her poem, "Surgeons must be very careful", Emily Dickinson described a battle, with surgeons on one side, and Life on the other:

> Surgeon's must be very careful

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[32] Edward Shorter, Bedside Manners: The Troubled History of Doctors and Patients (New York: Simon and Schuster, 1985), 73.
[33] Louisa May Alcott, Hospital Sketches (Boston: J. Redpath, 1863), 97-98.
[34] Pernick, A Calculus of Suffering, 258.

> When they take the knife!
> Underneath their fine incisions
> Stirs the Culprit - Life![35]

Dickinson's image is very disturbing. She suggested that it is unclear whether surgeons are the instruments of life or death.

William Blake presented a very gruesome sketch of a pre-anesthesia nineteenth century surgeon. Jack Tearguts would violently open up his patients, immune to their cries. The surgeon almost seemed to relish the violence and suffering, with a sinister sense of glee:

> "Ah said Sipsop, I only wish Jack [hunter] Tearguts had the cutting of Plutarch - he understands anatomy better than any of the Ancients. He'll plunge his knife up to the hilt in a single drive and thrust his fist in, and all in the space of a quarter of an hour. He does not mind their crying - tho they cry over - so he'll scrape their bones if they don't lay still and be quiet - What the devil should in the hospital that have it done for nothing, make such a piece of work for..."[36]

Many people feared the lack of surgeons' humanity, and their sensitivity to pain. In the era before anesthetics, when surgery was indicated, patients would either steel themselves to the horror, or often avoid surgery entirely and turn to other healers. The fact that there were so many therapeutic options reveals that people had no real faith in any one solution or institution. Patients often ended up treating themselves, what we now call "self-medicating" - they would try home remedies and "restorative tonics".[37]

Remedies and medicines were not the only sources of pain relief. Magic and religion probably played a more significant role in pain relief than

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[35] Dickinson, Poem #108, c.1859 from The Complete Poems.

[36] William Blake, "An Island in the Moon", Ch. VI, from The Poetry and Prose of William Blake, ed. David Erdman (New York: Doubleday, 1965).

any remedy or doctor, until improvements were made in the medical treatment of pain. Suffering Americans readily sought relief from traditional and non-traditional religious sources. What is crucially important about this is that religious leaders listened to their followers' pain concerns in an era when doctors were not that helpful. Even if priests or magicians could not provide complete relief, they often did provide empathy and explanations for the suffering. The relief that comes from being listened to, and cared about, is significant. It means that the individual does not have to carry the burden of suffering solely on his or her own shoulders. Pernick describes the appeal of "natural healers": "Natural healing taught sympathy with suffering, but would not sanction active, artificial, or risky measures to relieve it."[38].

Explanation in itself relieves suffering; the defined is much less mysterious and threatening than the undefined. Historian and anthropologist René Fulop-Miller gets at the heart of the pain predicament. Pain itself is an amorphous, invisible enemy, and was even more so before biologists discovered nerves and the mechanisms of pain. Throughout history the suffering have often seen pain as something supernatural and mystical, and so have turned to the caretakers of the supernatural - first sorcerers, and then often priests - to seek explanations, and ultimately relief:

> Man believed himself born into a hostile environment. He perceived with his own senses that the animals and elements would do him wrong. These were enemies he could understand, and with which he could cope. But at the first twinge of pain something invisible, unfathomable, disturbed the intelligibility of the visible world. What

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[37] Shorter, Bedside Manners, 72.
[38] Pernick, A Calculus of Suffering, 114.

> else than an unknown power, mightier than himself, could be thus capable of afflicting with illness and pain one who had hitherto been hale, upstanding and strong...Whenever a pain is supposed to be the outcome of demoniacal possession, you must choose as healer the person best fitted to act as exorcist...[39]

This led the suffering to shamans, and then, when Christianity gained power, to priests. In the days before medicine dealt seriously with pain, people often consulted their local priest, nun or monk in addition to, or instead of, a doctor.

With anesthesia's introduction in nineteenth century America, the responsibility for pain was essentially taken over by the doctors. They were the first ones to offer an effective, predictable, and consistently reproducible way of relieving pain. This by no means meant that patients stopped seeking alternative healers or religious leaders to relieve pain. But, symbolically, a transfer of power occurred that was to gain momentum throughout the rest of the nineteenth century and into the twentieth. In the history of mankind, there was nothing and no one that could successfully and *completely* relieve surgical pain. The doctors were the wielders of this incredibly powerful new tool. They may not have had the means to successfully relieve all forms of pain, but what they did have was an innovation, amazing in itself, that was also a tremendous symbol - a symbol of the end of the inevitability of suffering. Both doctors and patients were astounded with the discovery and its implications; a vehement debate over the use of anesthetics ensued.

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[39] René Fulop-Miller, Triumph Over Pain (New York: Bobbs-Merrill, 1938), 11.

Medicine was forced to integrate its new weapon against pain, and its new responsibility for pain, into its practices and philosophies. The powerful tool of anesthesia gave doctors a heady sense of their own power and worth not only in pain control, but in medicine in general.

Once pain became part of the medical sphere, the treatment of pain was catapulted to a powerful level in modern therapeutics. Pernick describes the transfer of responsibility for pain control to doctors as the "medicalization of human suffering":

> The long term effects of anesthesia on the doctor-patient relationship have been the most subtle and most pervasive. Today, many people rely on painkilling technology to provide a pill or panacea for every discomfort...Painkillers have fostered our dependence on the medical profession.[40]

Doctors became the new definers in pain issues. They took pain over, wrestled with it in its undefined stages, and ultimately attempted to define it.

The "point and purpose of pain"

When the inhalational anesthetics were discovered and introduced to surgery in mid-nineteenth century America, there were many different opinions about pain and pain relief. Pain is a complex issue, evoking fundamental questions about its purpose and role in human life, and how doctors, or, as we shall see, even *if* doctors, should treat it. Since, prior to the introduction of anesthesia, doctors had little in their arsenal against pain, they did not focus on the pain question in a serious or organized way. There

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[40] Pernick, A Calculus of Suffering, 233.

may have been no professional consensus about pain control in the mid-nineteenth century, but definition comes after grappling with the issues, and this is certainly what American doctors did when confronted with the inhalational anesthetics.

The nineteenth century doctor O.W. Holmes himself saw medicine as an institution which necessarily had to redefine itself periodically when faced with new problems and innovations. He argued that medicine is made up of changeable and permanent parts, and the changeable parts are profoundly influenced by the social, philosophical, historical and political contexts. The controversy over the new anesthetics was one such situation in which a medical concern became intertwined with fundamental issues of human life. Dr. Holmes was quick to recognize this and respond. He saw that the growth and survival of medicine required a re-evaluation of the point and purpose of pain.

In the nature vs. art debate, Dr. Holmes had always been fairly firmly on the side of nature - that is he believed in minimal interference with the body's natural processes. This philosophy informed his response to the new anesthetics - a fairly wholehearted rejection of them - and his reflections on the "point" and "purpose" of pain. The history of suffering and death, extending back to Creation, was, for Dr. Holmes, evidence enough of pain's integral role in human life:

> Disease and death, if we may judge by the records of creation, are inherently and essentially necessary in the present order of things. Many affections which art has to strive against might be easily shown to be vital to the well-being of society...There are many ladies, ancient

> and recent, who are perpetually taking remedies for irremediable pains and aches. They ought to have headaches and back-aches and stomach-aches; they are not well if they do not have them... there is no doubt that the constant demand for medicinal remedies from patients of this class leads to their over-use; often in the case of cathartics, sometimes in that of opiates...A frightful endemic demoralization betrays itself in the frequency with which the haggard features and drooping shoulders of the opium drunkards are met with in the streets.[41]

Dr. Holmes did not appear to differentiate the chronic pain which led patients to use opium from the surgical pain that led patients and many doctors to use anesthetics:

> Throw out opium...throw out wine, which is a food, and the vapors which produce the miracle of anesthesia, and I firmly believe that if the whole Materia Medica, as now used, could be sunk to the bottom of the sea, it would be all the better for mankind, - and all the worse for the fishes.[42]

Holmes' suggestion of a general public weakness and moral lassitude is clear, and he believed that by giving into the public, doctors were contributing to this downfall.

There were other doctors who also held that pain played a positive and necessary role in human life. Dr. John Hilton, a British surgeon whose work was published in America in the nineteenth century, emphasized the diagnostic value of pain. Pain also had the power to make the sufferer slow down so that the body could heal. Like Dr. Holmes, Dr. Hilton looked as far back in human history as Creation to support his arguments about the utility of pain. The following is Hilton's assessment of the first experience of pain in the Garden of Eden:

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[41] O.W. Holmes "An Address delivered before the Massachusetts Medical Society", 197&200.
[42] Ibid., 202&203.

> I have made these observations for the purpose of showing the original promptings of Nature to man, for the alleviation of what must have necessarily befallen him in his altered condition. Pain was made the prime agent. Under injury, pain suggested the necessity of , and indeed compelled him to seek for, rest...If the hidden cause of pain be in any one particular spot, it is only by tracing the nerves of and from that spot that we can hope to arrive logically at the real cause of the symptoms and so divest the cause of its obscurity...When a patient complaining of pain applies to the surgeon, the surgeon ought to seek for the real cause.[43]

In his discussion of the value of pain during labor, Dr. Channing echoed Dr. Hilton's concern that pain is an important diagnostic tool. He emphasized the importance of pain in guiding the surgeon and avoiding surgical mistakes. According to Dr. Channing, ether not only could anesthetize the patient but could also anesthetize the surgeon's ability to perform a careful operation.[44] While these doctors discussed the diagnostic value of pain, they did not address whether pain control was acceptable in cases where pain had *no* diagnostic value. Their thoughts on pain seemed to be informed more by medical concerns than moral ones.

The moral issues surrounding pain and pain control were important concerns for some doctors. In his paper on "Etherization, with Surgical Remarks", Dr. John C. Warren, a surgeon at the Massachusetts General Hospital, suggested that there is a moral hierarchy to pain. Not all pain is created equal. Some pain is natural and has a real purpose, such as labor

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[43] John Hilton, "A course of lectures on the influence of mechanical and physiological rest in the treatment of accidents and surgical diseases, and the diagnostic value of pain" in On Rest and Pain, reprinted from a London edition (Ohio: P.W. Garfield, 1891), 4&70.

[44] Dr. Channing, "Ether in Labor", Boston Medical and Surgical Journal 36 (1847): 337.

pains, while other pain, such as surgical pain and the pain of the dying, are purely detrimental and should be relieved by whatever means necessary:

> The application of ether for the alleviation of the pangs of labour may seem to claim attention. The reversal of the decree of nature, which in humankind connects suffering with parturition, would indeed be a phenomenon as remarkable as any medical science has revealed. There is no parity between the abolition of pain in surgical operations, and the abolition of pains in labour...There is nothing contrary to the laws of nature in the removal of pain from surgical operations...suffering is no essential or useful part of a surgical operation...The law which regulates the pains of labour is a general law which cannot be changed by the power of science...A very important use of etherism remains to be noticed...in mitigating the agonies of death...The value of the discovery will be greatly enhanced, since the number of those who are called on to suffer in the struggle between life and death, is greater than that of those who are compelled to submit to the pain of surgical operations.[45]

Concerns about the proper uses of the new anesthetic, ether, prompted Dr. Warren to reflect on different kinds of pain. He felt that it was his role to look beyond the realm of medical science - to interpret "the laws of nature" - in order to determine in which cases the medical profession should treat pain.

Alleviation of pain was a moral *obligation* in the eyes of other doctors. Dr. Valentine Mott did not distinguish between different kinds of pain when he considered the use of anesthesia, but, like Dr. Warren, his discussion of pain control had strong moral overtones. The language he used when praising the new inhalational anesthetics reinforced his belief that it is the doctor's moral imperative to relieve pain when and if it is possible:

> Pain is useless to the pained. So Galen said centuries ago, and so the late discussions of the question of anesthesia have abundantly proved; and if any members of the medical profession still entertain the idea that pain may have some occult, mysterious use, with which it would

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[45] Dr. John C. Warren, Etherization, with Surgical Remarks (Boston: Ticknor, 1847), 67-70.

> be dangerous to dispense, we must remember that the general sentiment of our profession, together with the common sense of mankind, is now unquestionably far in advance...That we should be enabled safely and conveniently to place the human system in such a state, that the most painful operations may be performed without consciousness, is to have secured to man immunity from what he most dreads: for most men fear pain more than death.[46]

The philosophical and anthropological implications of anesthesia

It is clear that the introduction of anesthesia posed extremely complex questions to the medical profession. Doctors now had to decide: who should get pain relief and when; if pain relief is medically and morally acceptable; and what are the acceptable risks of pain relief. When Pernick uses the phrase "the medicalization of human suffering", we also have to consider that a reverse phenomenon occurred at the same time; "the medicalization of human suffering" also pulled the medical profession into non-medical arenas. When doctors came together to examine pain, they were forced to address the moral, spiritual and political issues and *responsibilities* that go along with being the caretakers of pain.

Doctors responded with discomfort, controversy and anxiety to the big issues involved with pain - scientific, moral, religious and philosophical. Anesthesia was an innovation that was seen as kind of a powerful pollutant that threatened the existing medical order. To a medical profession that was divided and without enormous structure and respect, however, anesthesia also promised a newfound power and prestige. Anesthesia embodied,

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[46] Mott, Pain and Anesthetics, 1&6.

therefore, a paradox. If we examine anesthesia in anthropological terms, we can better understand its significance in history, and its transformative power in the medical profession.

Anthropologically, the "unknown" has always had an incredible cultural power. Mary Douglas, an anthropologist who has devoted much of her career to studying the significance of the "unknown" and "ambiguous" in human societies, argues that the ambiguous helps define and clarify the existing order of things: "When something is firmly classified as anomalous, the outline of the set in which it is not a member is classified"[47]. For example, in her article on "The Abominations of Leviticus", Douglas examined kosher diet 'rules' from an anthropological perspective, and found that every forbidden animal somehow did not fit into clear, 'acceptable' categories. Take the snake, a forbidden food. It is a land animal; however, land animals are 'supposed' to move across the earth with legs. The snake is an anomaly. Its slick skin and its slithering, "swarming" movements are more like that of a water animal, but yet it spends much of its life on land. The snake defined the clear, acceptable categories by being an example of something that did not fit into these categories. Land animals 'should' have legs, and animals with hairless, slick skins and no legs, 'should' exist in the water.[48] The ambiguity of the snake not only helped define what should be, but also was a source of discomfort and terror. Many people still shrink from this "anomalous" creature. And, many people view it with a kind of awe and reverence. In its

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[47] Douglas, Purity and Danger , 38.

ambiguity, it holds mythical and magical power. From the Garden of Eden on, the serpent has reappeared in diverse cultures as a supernatural and powerful beast.

Anesthesia was an 'anomaly' for the nineteenth century American medical profession. Like the snake, it was scary and powerful, and focused attention on the existing order. As an achievement of hard science, but also a mystical tool that could simulate death and abolish one of the greatest of all mysteries, pain, anesthesia was a tremendous vehicle for change. Such an anomaly is not so easily dealt with. Douglas very eloquently describes the difficult process of integrating ambiguity into the existing order:

> It is generally agreed that all our impressions are schematically determined from the start. As perceivers we select from all the stimuli falling on our senses only those which interest us, and our interests are governed by a pattern-making tendency, sometimes called schema...The most acceptable cues are those which fit most easily into the pattern that is being built up. Ambiguous ones tend to be treated as if they harmonized with the rest of the pattern. Discordant ones tend to be rejected. If they are accepted, the structure of assumptions has to be modified...As time goes on and experiences pile up, we make a greater and greater investment in our system of labels. So a conservative bias is built in. It gives us confidence. At any time we may have to modify our structure of assumptions to accommodate new experience, but the more consistent experience is with the past, the more confidence we can have with our assumptions.[49]

Anesthesia was a new experience that was not consistent with past medical therapeutics. Medicine had to integrate anesthesia into its existing ethos. Douglas sheds light on the incredible transformative power of new, ambiguous experience - the transformative power of disorder:

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[48] Mary Douglas, "The Abominations of Leviticus", in Purity and Danger, 55-56.
[49] Ibid., 37.

> Granted that disorder spoils pattern; it also provides the materials of pattern. Order implies restriction; from all possible materials, a limited selection has been made and from all possible relations a limited set has been used. So disorder, by implication is unlimited, no pattern has been realised in it, but its potential for patterning is indefinite. This is why, though we seek to create order, we do not simply condemn disorder. We recognize that it is destructive to existing patterns; also that it has potentiality. It symbolizes both danger and power.[50]

Before we can examine exactly *how* anesthesia transformed the medical profession and created a new order, we have to look at how it was perceived to be a source of ambiguity and disorder, and a source of danger and power.

Since Anesthesia, relieving pain, and pain issues were not originally the domain of medicine, anesthesia met with resistance simply from this fact. It was not initially recognized as belonging to the scientific world, and so there was scientific skepticism of the "non-scientific". Consistent with Douglas' notion of ambiguity, the more powerful the new mysterious discovery, the more threatening and dangerous it was. Anesthesia even posed a threat to medical language - it had a "high sounding and unscientific name". At a meeting of the Philadelphia County Medical Society, one doctor commented:

> When the first report of anesthesia in surgery reached us from Boston, it came, not only startling us by its novelty and the magnitude of change in practice it contemplated, but also shocking us by its violation of our ethical notions and the savor empiricism that hung about it. The new agent had a new, high-sounding and unscientific name, and there were rumors of a patent right to be secured to its discoverers.[51]

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[50] Ibid., 94.

[51] "Discussion of Anesthesia" at the April 13, 1852 meeting of the Philadelphia County Medical Society in Medical Examiner viii (1852): 298.

It is notable that the Philadelphia medical profession was slow to accept surgical anesthesia.

Patients also felt threatened by the powerful new anesthetics. Many feared the unknown - "stupefication" - more than the pain and danger of unanesthetized surgery. In a volume of the Boston Medical and Surgical Journal from 1847, there was an account of an 89 year old woman in New York, undergoing surgery for breast cancer who said, "No, sir, I will not be stupefied, you may cut."[52] Stories like this one were common, and there were frequent comments in the Boston Medical and Surgical Journal in the years following the first use of anesthesia that revealed both patient and doctor fears about the new anesthetics.

The topic of anesthesia was also popular in the layperson magazines of the day. Putnam's Magazine was a journal dedicated to American literature, science and art. In an article entitled "Doctors" in the July 1853 issue, the author alluded to the recent changes in medicine, of which the discovery of anesthetics was at the forefront. He called these changes revolutionary. The new inhalational anesthetics interrupted the existing order of medical therapeutics. They were an acute blow to doctors and patients alike:

> The comparatively slow accumulation of scientific truth in regard to the treatment of disease, is illustrated by the fact that not until the lapse of 2,000 years after medicine had assumed the rank of a science, under the auspices of Hippocrates, was the circulation of the blood discovered - an era in its history... But, in our own day, the rapid and valuable developments in chemistry have, in a measure, reversed the picture. Numerous alleviating and curative agents have been discovered...Chloroform if one of the most beneficent of these new

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[52] BMSJ 35 (1846): 463.

> agents, and has exorcised the demon of physical pain by a magical charm, without violating, in 'judicious hands', the integrity of nature.[53]

The author spoke about anesthesia with a sense of awe. The language that he used to describe chloroform expressed his wonder at something that had taken on "magical" and mythical proportions in the medical world, and the world in general. He described chloroform not only as a revolution, but also as a revelation, one that he believed could be integrated into the scheme of things without upsetting the order too much - without "violating the integrity of nature".

IV. From Pain to Power

Was the scientific discovery the most significant and powerful aspect of anesthesia's introduction in nineteenth century America, or were the mystical qualities of anesthesia equally as important? The answer may be the latter. It is not mere coincidence that the author in Putnam's Magazine used religious terminology to talk about chloroform. René Fulop-Miller argues that pain had always been the providence of religious thinkers and philosophers. In fact, he believes that it was the religious and philosophical notions of pain as a positive and necessary part of human existence that hampered science's search for understanding about, and treatment of, pain:

> Religious sentiment obscured the boundaries between bodily and mental pain. According to the Old Testament writers, when the just were afflicted, this was because the Almighty wished to try them, to discipline them... and with the advent of the Christian dispensation, pain came even more definitely to be regarded as a means of

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[53] "Doctors", Putnam's Monthly Magazine 2 (July 1853): 66.

> enlightenment. The martyrs voluntarily accepted it... When philosophy entered into the religious heritage, it took over, with other doctrines, this outlook on pain, so that the philosophers, no less than the saints, considered pain to be a moralizing agent. The Stoics' assertion that pain was not an evil influenced the whole of Western philosophy. In his Anthropology, Kant wrote: "Pain is the spur to activity, and only through pain do we feel ourselves to be freely alive. Without pain we should be lifeless." Nietzche, the philosopher whose motto was "Praised be that which steels us", held that pain favored the preservation of the species.[54]

In the transference of pain from the domains of religion and philosophy to medicine, some of the power and influence of these ancient institutions was also transferred to medicine. Fulop-Miller talks about how anesthesia helped throw off the "metaphysical shackles surrounding the concept of pain"[55]. While anesthesia did symbolize a shift in paradigm from viewing pain as a positive and noble entity to something that should be abolished, the advent of anesthesia did *not* completely shake off the "metaphysical shackles" of pain issues. Rather, anesthesia incorporated the metaphysical with the scientific. It was a mysterious and mystical tool which could simulate a reversible death like state, and whose mechanism of action was unknown. At the same time it was a tremendous advancement in the science of chemistry and medicine. It married the metaphysical with the physical in a powerful combination.

The magical and mysterious anesthetics were especially awesome to the lay people. For a world in which people had become used to the universality and inevitability of pain, complete pain relief during surgery was unfathomable, and so this new reality took on supernatural overtones. The

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[54] Fulop-Miller, Triumph over Pain, 393.
[55] Ibid., 397.

language people used to describe anesthesia was very important in highlighting its mystical, metaphysical qualities. Writing about her experience as a nurse helping with amputations during the Civil War, Louisa May Alcott spoke of the "merciful magic of ether"[56]. The public's response to anesthesia fit into the larger tradition of pain relief - religious, mystical and philosophical. However, the amazement with anesthesia went beyond that with the earlier magical and religious ways of dealing with pain, because medicine now had a tool that enabled doctors to alleviate surgical pain better than any of the traditional sources of comfort.

In nineteenth century America and earlier, magic and religion did not often have the support of science and vice-versa. The power of hard science, on its own, was significant. For many people, the relief of suffering was considered to be more valuable if the therapy had scientific explanations, and evidence of consistent and reproducible results. Treatments that were not based on "hard" scientific principles, such as the use of mesmerism (hypnosis) to relieve pain, were considered shams and jokes. "Hard science" presented a united front against pain, and also against the rest of the culture and history of pain relief. Referring to "Operations without pain", the Boston Medical and Surgical Journal said "A remarkable discovery has been made. Unlike the farce and trickery of mesmerism, this is based on scientific principles"[57]. Anesthesia had the scientific support of consistent and reproducible results, but the scientific explanation of how it worked was

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[56] Alcott, Hospital Sketches, 43.

unclear. Did this undermine its acceptance and appeal? Some doctors felt this way, but many doctors and many laypeople still held stock in the tremendous power of the religious and mystical. The fact that anesthesia represented a powerful combination of the natural and the supernatural was one of its greatest strengths.

Richard Shryock emphasizes that while the fruits of hard science had a certain authority, many people did not find the "cold analysis" and reason of the Enlightenment appealing. At the turn of the nineteenth century, a more adventurous and emotional attitude towards science developed that paralleled the rise of the Romantic movement in arts and literature:

> Increasingly men yearned for a warmer and less detached state of mind: they envisaged life in terms of adventure rather than of cold analysis. One discerns this most readily in literature and other fine arts, which became suffused with emotion. The didactic Pope gave way to the mystical Coleridge, the impassioned Shelley, and the lovelorn Keats. And the majestic Handel was followed by Wagner, Lyric in Die Meistersinger and wild in the whirlwind of Die Valkyrie. In this age it was no longer enough to be enlightened: men wished to feel deeply, to commit their hearts as well as their minds. In short, Romanticism took over.[58]

The mysterious and mystical qualities of anesthesia appealed to this new romantic frame of mind, and gave anesthesia a privileged position that it might not have possessed based on its scientific qualities alone.

The paradox and power of anesthesia as a symbiosis between magic and science was crucial. Anesthesia gave science and medicine a tremendous boost through its ability to accommodate the mystical and philosophical

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[57] BMSJ 35 (1846): 324.

[58] Shryock, Medicine and Society in America, 119.

issues that are fundamental to pain and pain relief. Medicine expanded and strengthened as anesthesia forced medicine to redefine its concerns, roles and responsibilities. This expansion was not strictly medical or scientific - doctors became the caretakers of much more than illnesses and suffering. They gained prestige, and a new authority in the non-medical lives of their patients as well. A comment in the popular Putnam's Magazine in 1853 perfectly encapsulated the incredible power of the marriage between science and the unknown and mystical in medicine:

> The influence of the mind upon the body is, in some instances, so great, that it accounts for that identity of superstition and medicine, which is one of the most remarkable traits in the history of science. The unknown is the source of the marvelous, and the relation between a disease and its cure is less obvious to the common understanding, than that between the evidence and the verdict in a law case, or religious faith and its public ministration in the office of a priest. The imagination has room to act, and the sense of wonder is naturally excited, when, by the agency of some drug, mechanical apparatus, or mystical rite, it is attempted to relieve human suffering and dispel infirmity.[59]

Anesthesia symbolized the redefinition of the scientific to include a place for the mystical and philosophical.

Anthropologist Claude Levi-Strauss has written extensively about the "Meeting of Myth and Science", and argues that there has been a reconstitution of science to include the mythical in contemporary times:

> The real gap, the real separation between science and what we might as well call mythical thought for the sake of finding a convenient name, although it is not exactly that - the real separation occurred in the Seventeenth and Eighteenth Centuries. At that time, with Bacon, Descartes, Newton and the others, it was necessary for science to build itself up against the old traditions of mythical and mystical thought...

[59] "Doctors", Putnam's Monthly Magazine, 70.

> This was probably a necessary move, for experience shows us that thanks to this separation - this schism if you like - scientific thought was able to constitute itself... Now, my impression is that contemporary science is tending to overcome this gap. [60]

Once again we are brought back to the importance of definition. Medicine has always faced the task of defining itself, or as Levi-Strauss calls it, "constituting itself". Levi-Strauss argues that the reconstitution of medicine to integrate science with myth is a contemporary phenomenon. I propose that with anesthesia's introduction in nineteenth century America, we saw initial but crucial steps in this reunion of science and myth. The reconstitution of medicine had begun.

The mystical, magical aspects of anesthesia

Perhaps the greatest philosophical paradox of anesthesia was that life and death were symbolically brought together in the action of anesthetics. Doctors would induce an "artificial" death in order to save lives. Many patients and doctors compared the experience of going under anesthesia to death and resurrection. Accounts of anesthetic experiences had powerful religious overtones. Several patients gave accounts of near-death experiences while under the influence of ether and chloroform.[61] Others described magical and mysterious experiences that seemed to transcend this world. One doctor recounted the following "journey" of a woman who took ether during childbirth:

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[60] Claude Levi-Strauss. "The Meeting of Myth and Science", in Myth and Meaning (New York: Schocken Books, 1977), 6-7.

> She said that she had sense, knew that she was alive, after the sponge was put to her mouth, but that she had no feeling after, and knew not what had happened. She had past the time in most entire freedom from all pain. She said that there had been a light before her eyes, and buzzing in her ears, and that she had been in another world.[62]

Some saw the experience of anesthesia as evidence that there is more than one realm or plane of existence. In a letter on the "New Gas" in the Boston Medical and Surgical Journal, Dr. A.L. Pearson described not only the incredible pain alleviating powers of ether,

> [The most important of ether's effect is] that it either wholly annuls pain, or destroys the consciousness of it, so that it is not remembered; and thus the sentiment of fear is wholly obliterated,

but also described a patient's unusual supernatural experience while under its influence:

> The patient appears to have been dreaming, and in the second case said that "he was in a distinct existence" (i.e. distinct from his former experience), thus illustrating the theory of double consciousness.[63]

In the introduction of Thomas Keys' History of Surgical Anesthesia, Chauncey Leake discusses the difficulty of defining pain and says, "Pain is still frequently thought to be the antithesis of pleasure, whatever that is. While anesthesia relieves pain, it can hardly be thought of as pleasure!"[64]. Interestingly, however, the mystical qualities of the new anesthetics were often described as being pleasurable, especially when doctors were recounting

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[61] Barker, S.W., "Anaesthesia", Harper's Magazine 31 (1865): 457.
[62] BMSJ 36 (1847): 315.
[63] A.L. Pierson, "Surgical Operations with the Aid of the New Gas", BMSJ 35 (1846): 364.
[64] Chauncey Leake's Introduction for Thomas Key's The History of Surgical Anesthesia (New York: Schuman's, 1945), xvi.

(or perhaps interpreting) their patients' experiences. We do have to cautiously interpret accounts of "pleasurable anesthesia" for several reasons: 1) There was likely an element of advertisement and propaganda in these accounts, 2) patient statements may have reflected a comparison to the horrors of pre-anesthetic surgery rather than expressed true pleasure, and 3) many patient accounts were actually physicians' accounts of how their patients responded to the new anesthetics, and so there is the problem of interpretation and embellishment. Still, we cannot ignore the message that anesthesia was an experience that went beyond the physical relief of pain, and proponents of the new anesthetics portrayed this metaphysical experience in a very positive light.

Dr. Channing was one of the first doctors to use the new surgical anesthetics during the labor of childbirth. His accounts of women delivering babies under the influence of ether make the experiences sound like mystical, quasi-religious events of transcendendant joy and pleasure. The following is one such account:

> The return to consciousness was slow. There was exhibited more excitement than I have before met with. There was full expression of previous most perfect freedom from suffering. A state of entire pleasure was expressed. She sung, talked, raised her arms high in the air. She did not recollect me, or anybody about her. Her child's cries, which were very loud, attracted strongly her notice.[65]

It is another example of the irony and paradox surrounding the new anesthetics that the experience of pleasure became allied with a traditionally

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[65] Dr. Channing, BMSJ 36 (1847): 415.

painful experience. Anesthesia's existence - its point and purpose - was born out of pain, and yet it not only provided relief but also seemed to be a source of joy and enlightenment. The surgeon Dr. John C. Warren described with rapture the beautiful experiences of both patient *and* doctor , when surgery was performed with anesthesia:

> A new era has opened to the operating surgeon! His visitations on the most delicate parts are performed, not only without the agonizing screams he has been accustomed to hear, but sometimes with the state of perfect insensibility and occasionally even with the expression of pleasure on the part of the patient. Who could have imagined that drawing a knife over the delicate skin of a face might produce a sensation of unmixed delight! That the turning and twisting of instruments in the most sensitive bladder might be accompanied by a beautiful dream! That the contorting of anchylosed joints should co-exist with a celestial vision!...And with what fresh vigor does the living surgeon, who is ready to resign the scalpel, grasp it, and wish again to go through his career under new auspices![66]

Dr. Warren not only believed that patients would willingly go under anesthesia again and again[67], but also that there was an enlightenment revealed through the anesthetic experience. He spoke of anesthesia's "curious"effect on sense and intelligence - i.e. the ability to suspend sense while the intellect remains intact.[68] This notion of the separation of sense and intellect clearly went beyond the medical, and entered the realm of philosophy.

The philosophical implications of the anesthetics were fodder for doctors, scientists and philosophers alike. Sir Humphrey Davy, who

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[66] John C. Warren, "Etherization: with surgical remarks", 3.
[67] Ibid., 47.

painful experiences [illegible]

mind pain, [illegible]

of joy and [illegible]

rapture [illegible]

was [illegible]

[illegible]

De [illegible]

anoth[illegible]

revelat[illegible]

"cosmic" [illegible]

while the [illegible]

and [illegible]

[illegible]

The [illegible]

discrete moments and [illegible]

[illegible]

discovered that nitrous oxide could be safely inhaled, described how his own experience under the effects of anesthesia led to his discovery that "nothing exists but thoughts; the universe is composed of impressions, ideas, pleasures, and pains."[69] Davy described a sense of out-of-bodiness or no-bodiness that was really an escape - an escape from organic, bodily, physical concerns. Science deals with the organic, yet the effect of *this* "scientific" agent was beyond the organic. It was suprascientific.

Thinker and author Benjamin Paul Blood went so far as to call the enlightenment produced by the experience of anesthesia, the "Anaesthetic Revelation". He examined doctor and patient accounts of anesthesia from a philosophical perspective and came to the conclusion that the truth and genius of human life is revealed when "coming to" from the anesthetic stupor. There is a "mood of introspection and understanding" attendant to the anesthetized condition that is lost with a return to, literally, *common* sense:

> I have spoken with various persons also who induce anaesthesia professionally (dentists, surgeons, etc.) who had observed that many patients at the moment of recall seem as having made a startling yet somehow matter-of-course (and even grotesque) discovery in their own nature, and to try to speak of it, but invariably fail in a lost mood of introspection...Nor can it be long until all who enter the anaesthetic condition (and there are hundreds every secular day) will be taught to expect this revelation, and will date from its experience their initiation into the Secret of Life...[70]

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[68] Ibid., 11.
[69] Sir Humphrey Davy's impressions of Nitrous Oxide, in Edward Warren's Some Account of the Letheon, 2d ed. (Boston: Dutton and Wentworth, 1847), 39.
[70] Benjamin Paul Blood, The Anaesthetic Revelation and the Gist of Philosophy, photocopy in Anesthesia Collection of Yale University's Medical Historical Library (Amsterdam, N.Y, 1874), 34.

This insight that anesthesia affords us into the "Secret of Life", is that there is nothing beyond us; each one of us is life, is reality, is God:

> Men and bretheren, into this pervading genius we pass, forgetting and forgotten, and thenceforth each is all, in God. There is no higher, no other, than the life in which we are founded... "The One remains, the many change and pass", and each of us is the One that remains.[71]

Blood honed in on the very essence of the mystical and religious power of what Dr. Valentine Mott called the nineteenth century's greatest *medical* discovery[72].

Benjamin Blood's revelation rejected traditional religious notions of an omnipotent god whose power and purpose remains a terrifying mystery to the people. It is the discovery of humanity's place in the universe - the definition and understanding that come with the anesthetic revelation - that Blood was in awe of. Blood gives us a good example of how the unknown is frightening. And yet, it is also through these mysterious and "unknown" experiences, like the "stupor" of anesthesia, that meaning is revealed and the unknown is demystified. The anesthetic revelation that individuals experience in Blood's philosophy is analogous to the revelation that medicine experienced as a result of anesthesia's introduction.

Anesthesia was not only seen as a conduit to mystical experience and philosophical revelation, it was also seen by many as a spiritual and mental good. It relieved the suffering human body, and also healed the suffering

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[71] Ibid., 35.

[72] Valentine Mott, "Remarks on the importance of anesthesia from chloroform in surgical operations, illustrated by two cases", Anesthesia VII (October 1848): 85.

human psyche. As many doctors and patients pointed out, the fear of pain was often worse than the actual experience of physical pain. Anesthesia helped relieve the fear - the psychic burden - that tormented surgical patients as they anticipated the imminent horror of being awake as their bodies were sliced open. Dr. Valentine Mott stressed the importance of psychic relief:

> That we should be enabled safely and conveniently to place the human system in such a state, that the most painful operations may be performed without consciousness, is to have secured to man immunity from what he most dreads; for most men fear pain even more than death.[73]

According to British historian H. Connor, the British public also felt that the horrors of surgical pain could be worse than death. Although the initial press coverage of deaths due to the new inhalational anesthetics was extensive in England, it died down fairly quickly. Connor maintains that the public ultimately saw the risks of anesthesia as the necessary and "inevitable price of painless surgery"[74]. Although the debate in America over the risks and benefits of anesthesia was also furious, doctors and patients over time saw that the benefits to the patient's psyche as well as his body outweighed the risks. Anesthesia during surgery became standard procedure by the end of the nineteenth century.[75]

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[73] Mott, Pain and Anaesthetics, 1.
[74] H. Connor, "Anaesthesia and the British Public, 1846-1856", Anaesthesia 25, No. 1 (January, 1970): 116.
[75] Pernick, A Calculus of Suffering, 258.

The symbolic roles of Anesthesia

Why was anesthesia so spiritually and morally charged? In nineteenth century American medicine and American life in general, the new anesthetics had complex *symbolic* value - they promised much more to the public than pain relief. They were first and foremost a symbol of hope. Sir William Osler said that the discovery of anesthesia was "the greatest single gift ever made to humanity"[76]. Some saw anesthesia's promise of relief from surgical pain as a harbinger of the end of all forms of pain. In mid-nineteenth century America, Dr. A. L. Pearson predicted that anesthesia's applications were potentially limitless:

> The doubts of the timid and the protests of self-constituted guardians of the public safety have all disappeared, and we agree in awarding this new remedy a high rank among the blessings of its employment is destined to be vastly greater in clinical medicine and midwifery. As far as my observation goes, there is no form of pain incident to the human frame in which it is improper to use it.[77]

Dr. Pearson believed anesthesia was a miracle - a panacea in the world of pain.

What is new is often considered to be hopeful. Anesthesia had the power of novelty and innovation behind it. Closely tied to the power of the new, is the fear of the new. Anesthesia embodied, at the same time, hope and danger. Dr. Worthington Hooker recognized the power of novelty in medicine, but he feared this power. He thought the new fascination with anesthetics (among other medical innovations of the day) would lead doctors

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[76] Sir William Osler, quoted in Richard B. Gunderman's "Dr. Horace Wells and the Conquest of Surgical Pain: a Promethian Tale", Perspectives in Biology and Medicine 35, No.4 (Summer, 1992): 540.

to employ procedures, without adequate investigation, that were potentially dangerous. He vehemently argued that "this prurient eagerness for new things, existing largely in the profession, and more largely still in the popular mind, must be repressed"[78].

A spirit of faith and hope pervades Benjamin Blood's "Anaesthetic Revelation". The insights anesthesia gave into the secrets of human life and human sublimity were the ultimate symbols of understanding and hope. Blood described how anesthesia dissolves the terror of the unknown:

> The world is no more that alien terror which was taught me. Spurning the cloud-grimed and still sultry battlements whence so lately Jehovan Thunders boomed, my gray gull lifts her wings against nightfall, and takes the dim leagues with a fearless eye.[79]

For Blood, anesthesia was not only a symbol of hope, but also a symbol of escape - escape from the confusion and fear that he felt prior to the anesthetic revelation.

Escape was an important component of anesthesia's symbolic power. Anesthesia was both literally an escape from bodily pain, but also symbolically an escape from the burden of suffering alone, and an escape from the awareness of being sick (at least temporarily). Anthropologist Henry Sigerist argues that pain is something that makes us "conscious of our bodily organs. Their proper functioning, to which we are accustomed, does not take place." Therefore, anesthesia not only provides an escape from pain, but escape from

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[77] A. L. Pierson in BMSJ 37 (1847): 499.
[78] Worthington Hooker, "The Present Mental Attitude and Tendencies in the Medical Profession", The New Englander 10 (1852): 564.
[79] Blood, "The Anaesthetic Revelation", 35.

an awareness of the body's dysfunction, and all that being sick means in one's life. Often this means an escape from dwelling on one's own mortality - "pain sometimes becomes fear - even that greatest of all fears, the fear of death"[80]. Anesthesia also symbolized an escape from the individual's total responsibility for his or her own pain. With anesthesia, patients escaped some of the burden of suffering. They shared that burden with the doctors.

Anesthesia also symbolized death and resurrection - perhaps its most fearsome and awe-inspiring symbolism. Dr. John C. Warren described "perfect etherization" as a "partial and temporary death"[81]. What made the link to death all the more powerful was the real possibility of death, if the anesthetic was administered improperly. The power to bring patients to the brink of death and then bring them back harkened back to the Christian concept of Jesus' resurrection. However, the fascination with simulated death had a rich history that went beyond traditional Christian faith. Historian Lloyd Stevenson discusses the extensive history of "suspended animation" that preceded the suspended animation of anesthesia. Stevenson uses the term suspended animation to describe people who were in trances, hysterical, under the influence of mesmerism (hypnosis), and also those people who were on the brink of death. Traditionally, suspended animation brought out people's fears of being buried alive. Both myths and real accounts of people who had been buried alive, only to wake up from their death-like trance during their funerals and burials, gave suspended animation a firm position

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[80] Henry Sigerist, "The Special Position of the Sick", in Culture, Disease and Healing, 389.

in cultural fears and rituals. There has also been a strong cultural fascination with resuscitation from death. Stevenson cites tales in which people were revived after drowning, being hanged or being hit by lightning[82]. The suspended animation of anesthesia gained power from its association with cultural fascinations with death and rescucitation from death. Although the existence of suspended animation was not new, the reliability with which people could be revived from anesthetic suspended animation gave it an awesome, mysterious quality that superseded other forms of suspended animation.

Anesthesia as a symbol of death leads us to another of its symbolic powers - the symbol of art conquering nature. With the aid of anesthesia, medicine could defy death. Doctors could place patients in a state of suspended animation, or "artificial death" and then revive them - bring them back to "life". Walter Whiter was a reverend who believed that death was not necessarily permanent. He argued that someday a safe and reliable suspended animation could be achieved during surgery. This would be the ultimate example of art conquering nature; the surgeon is an artist who manipulates death in order to ease the suffering of his patients and make his own work easier. Reverand Whiter wrote in 1819, but his comment was a forecast of the first use of the inhalational anesthetics almost thirty years later:

> If in any future time the suspension of animation by Art can be safely admitted, we at once see what important consequences will result in

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[81] J.C. Warren, "Etherization", 23.

[82] Lloyd G. Stevenson, "Suspended Animation and the History of Anesthesia", Bulletin of the History of Medicine 49 (Winter, 1975): 497-499.

> various cases. The Artist may be embarrassed in his deliberations by the dangerous nature both of the case and the operation, as tending to organical injury if the operation should be delayed, and impeded likewise by the fears of the Patient, who prefers Death in any form to the pain which he must endure under the hands of the Operator. - The device of Suspended Animation unravels all these difficulties both to the Patient and the Artist: The Patient tortured with present pain and dreading its continuance or increase, with Death finally before his eyes, readily resorts to the refuge of Suspended Animation, as to be a blessed asylum, from which he expects to escape, free from all his evils, and unconscious of the perilous conflict, which he was destined to encounter. -The Artist proceeds forward in his work in a deliberate, decided and effective manner, unembarrassed by the impediments which obstruct such operations in a feeling body, disturbed by a terrified mind.[83]

Reverand Whiter did not know how applicable his comment would soon be in the world of surgery. He also did not know that it would be the "magic" of a powerful, but mysterious new chemical technology that would bring about this revelation and revolution in suspended animation.

Perhaps the most obvious, but also one of the most important, of anesthesia's symbolic powers was its role as a symbol of relief. Anesthesia meant the end of the inevitability of suffering during surgery. It was also perhaps a harbinger of euthanasia. The very use of anesthetics supported the philosophy that pain could be an experience worse than death. In weighing the balance between the risks and benefits of anesthesia, the medical profession ultimately decided in favor of using the new anesthetics - even though in certain cases this would mean that some patients would die from improper administration of anesthesia or from deadly physiological reactions to the chemicals. Symbolically, anesthesia rejected the Stoic response to pain.

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[83] Walter Whiter's, A Dissertation on the Disorder of Death, 1819, cited in Lloyd Stevenson's, "Suspended

For many, relief of suffering now became a medical and philosophical priority.

Anesthesia clearly provided relief for the patient, but it also provided relief for the doctor. Dr. J.C. Warren argued that the reality of surgery without anesthesia caused surgeons themselves to shrink in horror, and:

> look upon operative surgery as the lowest, poorest side of their profession. An operation was attended with the formality of an execution. The hardiest of them are described as steeling themselves to the duty of operating...[84]

While the very existence of doctors had always been about treating illness and trying to provide relief to the suffering, anesthesia heralded a new era of relief, one in which doctors took a very active role in alleviating pain.

The power of action

The power of action has a rich history in medicine. Action was the premise of heroic medicine. Use of the new anesthetics embodied successful action; their effects could be seen and felt. This played a significant role in both changing the power of the medical profession and changing the public perception of doctors. Charles Rosenberg discusses how the early nineteenth century American public believed that the more tangible the effect of the drug or procedure, the more powerful and beneficial it was. The language of the day underlined the importance of *seeing* a therapy's action; another term for

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Animation in the History of Anesthesia", 508.

[84] J.C. Warren, The Influence of Anesthesia on the Surgery of the Nineteenth Century (Boston: Marrymount Press[privately printed], 1906), 4.

administering a drug was to "exhibit" the drug[85]. Medically and emotionally it was important to witness a therapeutic act. Observing the action of a physician's therapy seemed to hold ritual significance in medicine. A drug or a procedure produced a result which all could participate in - the doctor, the patient, and the family of the patient. This ritual was especially important at a time when many people did not have great trust in doctors or the medical profession. Even if the doctor's act did not produce the desired effect or a cure, many people cared that at least their doctor was doing something.

Patients were often more aggressive about what they wanted therapeutically than the doctors themselves: "Some patients demanded, as well as expected, the administration of severe cathartics or emetics; they expected peril in too languid a therapeutic regimen"[86]. Rosenberg points out that this expectation of action did not die with the new ideas of therapeutic nihilism as the century progressed:

> The physician still had to create an emotionally, as well as intellectually meaningful therapeutic regimen; and throughout the middle third of the Nineteenth Century, this meant the administration of drugs capable of eliciting a perceptible physiological response.[87]

The desire for action (even if the benefits are dubious) is fundamental to human nature. Inaction in medicine is often perceived as being the result of uncertainty. Inaction often translates as "I do not know what I can do to help". It is often seen as an admission of defeat, and in medicine the stakes of

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[85] Rosenberg, The Therapeutic Revolution, 11.
[86] Ibid., 14.
[87] Ibid., 16.

defeat are usually high - they can be a forecast of chronic suffering and/or death. Anthropologist Robert Hahn gives a powerful argument about the prevailing power of action in modern therapeutics:

> Patients commonly go to physicians for resolution of a problem of sickness. There is strong value among biomedical physicians to respond to the patient's problem. "The central task", writes sociologist Donald Light, "is to act in the face of various uncertainties." Observers of biomedicine have described this value as "meliorism", "instrumental activism", and "therapeutic activism". Though constrained by the principle ascribed to Hippocrates, "First, do no harm", physicians have a strong urge to "do something". "First, the aim of the practitioner is not knowledge, but action. Successful action is preferred, but action with very little chance for success is to be preferred over no action at all. There is a tendency for the practitioner to take action for its own sake on the spurious assumption that doing something is better than doing nothing."[88]

This comment applies equally to nineteenth century America as it does to America in the 1990's. The suffering want something to be done, because action provides hope.

The inhalational anesthetics were more potent than most, if not all, of the agents in the *materia medica* of nineteenth century America, because not only could patients and doctors witness the incredible action of these agents - artificial sleep and insensibility, but they could also see that this action was actually helpful. This was a departure from many of the therapies of the day, such as blood-letting, which were very dramatic, but which did not have clearly positive benefits. The use of anesthetics produced a consistent and

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[88] Robert A. Hahn, Sickness and Healing: an Anthropological Perspective (New Haven: Yale University Press, 1995), 152.

desirable effect. While anesthesia's mechanism of action remained a mystery to nineteenth Century Americans, its powerful end results did not.

V. Bringing pain down to earth and exalting doctors: the changing power scene in American medicine

The power of pain to determine the balance between pleasure and suffering in human life was a crucial reason that anesthesia became such an important and defining force in American medicine. Anesthesia garnered the power of pain, and brought the basic human issues of happiness, suffering and pleasure to the forefront of medicine. Similarly, doctors garnered the power of anesthesia by being the wielders of this new tool. With anesthesia, doctors entered a new powerful realm where they were grounded in scientific innovation, and yet exalted by their new role in the mystical realm of pain and the suspended animation of anesthesia. The end result, although it took some time, was that doctors and the institution of medicine reached an unprecedented position of authority and prestige in American society.

The medical profession's new power and prestige had important implications. The profession as a whole gained new respect and authority, and on an individual level, the doctor-patient relationship changed. Early in the nineteenth century, the public's faith in 'regular' medicine was limited, and where it existed, it was largely manifested by faith in one's personal doctor. With anesthesia's introduction, a new more powerful and cohesive institution offered scientific technology and humane caring - a package that gave the public an invigorated faith in 'regular' doctors. Doctors were heady

with this new power and prestige in the doctor-patient relationship, and many used their new power over pain as a launching point to play an expanded role in the lives of their patients.

Anesthesia gave doctors the ability to dole out pleasure and pain. They took on the role of deciding in which cases anesthesia was warranted. This translated into deciding who should get pain relief and who should not. Doctors entered a moral and philosophical realm where they were the arbiters in the suffering equation.

One of the major areas in which doctors disagreed about the "appropriateness" of using anesthetics was in relieving the pain of childbirth. Dr. Channing described how the psychological uplift and hope that anesthesia would give to the mother would facilitate natural labor:

> I felt that the moral conviction, always so powerful in labor, that relief would be obtained from this agent [ether], might revive hope and give encouragement, where a most depressing despair existed, and that thus the labor might be naturally terminated.[89]

Another doctor of the day discussed his fears about "ether in childbirth". He believed that there is a place for "legitimate" or "necessary" suffering in cases of normal childbirth, and that indiscriminate use of anesthetics in these cases is not only detrimental to the woman, but also detrimental to the well-being of the entire community:

> From frequent notices in ordinary newspapers and advertisements, it is to be apprehended that serious mischief may be the result of the too frequent use of ether in childbirth...From the flippant manner the subject is spoken of by persons who have no just apprehension

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[89] Dr. W. Channing, "A case of inhalation of ether in instrumental labor", BMSJ 36 (1847): 313.

> of the nature of parturition, the idea is derived that it is the most trying and horrible of all human woes, and that the curse, "in sorrow shalt thou bring forth children", may be completely obliterated by the happy discovery of etherization...[this attitude] is likely to prove dangerous to the well-being of the community...[90]

What this doctor did not explain, however, is *how* the use of anesthetics in labor would have serious consequences for either the woman or the community.

Dr. John C. Warren came down in the troubled middle on the question of anesthesia in childbirth. In general, he thought it was contrary to the laws of nature, and that the use of anesthetics in labor was an inherently different beast than the use of anesthetics in surgery. While the former was a "reversal of the decree of nature", the latter was justified.[91] Although Dr. Warren believed in the natural, fundamental purpose of pain in childbirth, he did believe that there were certain unusual cases which warranted the use of anesthetics:

> The law which regulates the pains of labour is a general law, which cannot be changed by the power of science. Its final cause is sufficiently plain to show its utility and necessity. Like most general laws, this, however, may have its exceptions, and we may increase the number of these exceptions by the aid of art...The cases then, in which ether could be properly resorted to, should be considered as exceptions, and we will specify the following: first, in natural labour, when the pains are uncommonly severe, especially the terminating pains of the first parturition; second, during limited parts of labours prolonged by a preternatural cause; third, when, from the peculiarity of constitution, the patient cannot, without danger, support the usual amount of suffering...[92]

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[90] BMSJ 37 (1848): 264.
[91] J.C. Warren. "Etherization", 67.
[92] Ibid., 68-69.

It is important to note that Dr. Warren implied that it is the *doctor's* role to determine what constitutes "uncommonly severe" pains, and "peculiarities of constitution".

Perhaps one of the most insightful examples of the doctor's new role in the moral realm of his patients' lives was given by Dr. Warren when he talked about the use of anesthetics in cases of exceptionally painful death. The doctor's power now involved holding the key to a painful or painless death. Dr. Warren was a strong advocate of use of anesthetics for the dying:

> A very important use of etherism remains to be noticed. In a former part of these pages, its application for the relief of the last distressing state of pulmonic inflammation has been transiently adverted to. Since the establishment of ethereal practice in surgery, its former utility in mitigating the agonies of death has led me to employ its influence in a more free and decided manner, and so far as the trials have extended, they serve to justify its use in a great number, and I hope I may say without enthusiasm, in the majority of instances...[93]

It is interesting to consider Dr. Warren's phrase "without enthusiasm". He had major reservations about using anesthetics; he believed that they should only be used once the dying person had "settled his accounts with this world".[94]

His example of a "proper" use of ether in a dying woman focused on the patient's moral attributes and her strength of character:

> [She was] very temperate in her eating and drinking, and of a religious character, she was cheerful, notwithstanding all these visitations; appeared to enjoy life more as she grew older, went out freely, and made two or three excursions into the country within a few weeks of her last illness...From the first inhalation to the period

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[93] Ibid., 69-70.
[94] Ibid., 70-71.

> of her death, five days elapsed, during which a considerable number of etherizations were used, and with such effect, that, as soon as any suffering occurred, she desired ether. In the intervals, she arranged such worldly affairs as remained unsettled, received the consolations of religion, and finally under ethereal influence her spirit imperceptibly took its flight.[95]

Dr. Warren felt that it was important to mention that she was a moderate and religious woman who had settled her affairs with the world. What Dr. Warren did not mention is who is to be the judge of whether the accounts are settled, the patient or the doctor? Can we infer from Dr. Warren's comments that the doctor should have the task and responsibility of evaluating whether his patient's accounts are settled, and deciding when the patient is ready to get the anesthetic? What training or authority does the medical doctor have to decide about such important, personal and non-medical issues? In the end, we cannot conclude whether Dr. Warren believed that these final decisions were the responsibility of the patient or the doctor, or whether it should be a joint decision. But, he did raise some important ethical questions. He suggested that the doctor should play a very powerful and paternalistic role at the time of his patient's death. The same ethical questions could be raised about the doctor's role in deciding which women should receive anesthesia in childbirth.

Dr. Atlee also considered which patients should and should not get the new anesthetics. He was one physician who chose to take this issue out of the moral arena. He believed that pain, and only pain, should be the guide for

[95] Ibid., 71.

the use of anesthetics:

> What the are the circumstances requiring their employment? And the answer is, who can tell?...With me, after a principle is once adopted, it matters not where it comes from, nor does it require a great accumulation of evidence for its elucidation; and I look upon it as a fixed fact that the anaesthetic may be administered whenever severe and prolonged pain would be otherwise suffered, unless strong indications exist to the contrary.[96]

Dr. Atlee's concern was clearly pain relief, above and beyond the concerns we have seen thus far.

It is a simple step from making judgments about in which *cases* anesthesia is warranted, to making judgments about which *people* should get anesthesia. After discussing nineteen cases of surgeries performed with anesthetics, Dr. J. Mason Warren (a different Dr. Warren) gave 'evidence' of who is most likely to be affected by ether, based on their sex, age and temperaments. For example, he argued that "women of nervous temperament are not infrequently brought to a condition closely resembling hysteria" under the influence of ether[97]. While Dr. Warren's evaluations were likely influenced by cultural biases about the differences between men and women's ability to endure pain, we have to recognize his basic premise that certain patients were better "suited" to receive anesthetics than others. The doctor took on the role of classifying and identifying the psyche and endurance of his patients. He then used this judgment to decide who would get anesthetics, and how these patients would react to the anesthetics.

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[96] Dr. Atlee, Medical Examiner, 13 April 1852, 315.
[97] Dr. J. Mason Warren in BMSJ 36 (March 1847): 160.

Dr. Silas Weir Mitchell also had reservations about the new surgical anesthetics. He, too, discussed how the different sensibilities of patients meant that they would have different anesthesia 'requirements'. He described women as "more likely to suffer from pain because they are less vigorous of body and more prone to thin-bloodedness". On the other hand, he believed that men were stronger and had been taught endurance[98]. Mitchell also believed that pain is a human experience that builds moral character. Therefore, he feared its abolition. He described a "morally" good woman as someone who silently endures pain:

> To endure without excess of emotion saves her from consequent nervousness, and from that feebleness of mind which craves at all cost instant relief. It is the spoiled child, untaught to endure, who becomes the self-pampered woman. Endurance of pain has also its side-values, and is the handmaid of courage and of a large range of duties.[99]

When it came to deciding the purpose of pain and who should receive treatment for their pain, Dr. Mitchell felt it was the role and responsibility of the physician more than anyone else:

> After all is said that can be said on its [pain's] values as a safeguard, an indicator of the locality of disease, after the moralist has considered it from the disciplinary view, and the theologian cracked his teeth on this bitter nut, and the evolutionist accounted for its existence, it comes at last to the doctor to say what shall be done about it. I wish it came to him alone.[100]

This is a powerful statement of Dr. Mitchell's belief in the wisdom, authority and wide purview of the nineteenth century American physician.

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[98] Silas Weir Mitchell, "Pain and its Consequences", in Doctor and Patient (Philadelphia: J.B. Lippincott, 1888), 85.
[99] Ibid., 90.

Some doctors went beyond deciding which patients and surgical cases warranted anesthesia, to administering anesthesia without the knowledge or consent of their patients. The dentist William Morton, who is often acknowledged as the first person to use the inhalational anesthetics in America, used anesthetics without his patients' knowledge in order to prove their efficacy:

> I have got it now! And I shall take my patients into the front room and extract their teeth, and then take them into the back office and put in a new set, and send them off without their knowing anything about the operation![101]

Dr. Morton conducted several tooth extractions on patients who came in with other dental complaints. Upon leaving his office, they were none the wiser that he had also removed some teeth. The fact that doctors could perform procedures without their patients' consent, or even knowledge, put doctors in a frighteningly powerful position. Dr. Morton claimed that his experiments were for the advancement of science.

Some doctors performed operations without patient consent when they believed it was in the best interest of an "unwilling" patient. Dr. J.N. Quimby described cases where he treated young, unwilling patients without their knowledge, by etherizing them as they lay sleeping in their homes:

> I applied the chloroform, divided the nail in the center, and removed the two segments by the application of forceps, without awakening the patient, or his having any knowledge of the operation until next morning, when he awoke, and discovering the condition of his foot, remarked that, had he known "it would not

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[100] Ibid., 91.
[101] Dr. Morton in Edward Warren's, "Some Account of the Letheon", 37.

> hurt any more than that, he would have had it taken out at the office, and was ashamed that he had made such a fuss about it.[102]

The ethical implications of this power to perform operations without patient knowledge or consent are enormous. Although Dr. Quimby's patients were children whose parents were aware of the procedures, his actions were essentially deceptive. He overruled the fears and objections of his patients, because he believed he was acting 'in their best interest'. Dr. Quimby did not feel that there was anything questionable about his hidden procedures. His actions revealed his paternalistic view of the doctor's wisdom and authority. His philosophy was that the doctor knows best. Patients would ultimately be grateful to him, despite any initial reluctance they might have about a procedure.

The expanding role of the doctor

Doctors in mid-nineteenth century America experienced the heady power of being mediators in one of the most fundamental and emotional aspects of human life - suffering. Happiness and suffering are concepts that are much larger and more complex than the scientific notions of what it means to be in pain or free from pain. The idea of the link between the body and the mind was an old and familiar one in medicine. Anesthesia gave it renewed vigor. Physicians responded to new authority in the science of pain by expanding their purview beyond science to the more personal, social and cultural issues of happiness and suffering.

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[102] J.N. Quimby, "On the Criminal Use of chloroform", Transactions of the American Medical Association

A comment on the doctor's new domain, power, and responsibilities appeared in "Doctors" in the July, 1853, issue of Putnam's Monthly Magazine. The comment captures the essence of the expanding role of the doctors, which increasingly included being moral and social guardians in addition to physical healers. The article also emphasized how doctors successfully capitalized on the power of religion and mystery to help fulfill this new role:

> In the economy of modern society, however, the physician has acquired a new influence; he has gained upon the monopoly of the priest, for while the spirit of inquiry, by trenching on the mysterious prerogatives which superstition once accorded, has retrenched the latter's functions, the same agency, by extending the domain of science and rendering its claims popular, has enlarged the sphere of the other profession. To an extent, therefore, never before known, the doctor fills the office of confessor; his visits yield agreeable excitement to women with whom he gossips and sympathizes; admitted by the very exigency of the case to entire confidence, often revered as a counselor and friend, as well as relied on as a healer, not infrequently he becomes the oracle of a household. Privileges like these, when used with beneficence and integrity, are doubtless honorable to both parties, and become occasions for the exercise of the noblest service and the highest sentiments of our nature; while, on the other hand, they are liable to the grossest abuse, where elevation of character and gentlemanly instincts are wanting.[103]

In this popular magazine of science, literature and the arts, doctors were portrayed as noble guardians of the body and soul. The author of the article, an educated representative of the nineteenth century American public, recognized that it was not only advances in science, but also the mysterious power of these new advances, that changed the nature of the doctor-patient relationship. It is crucial to remember that at the time this article was

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xxxi (1882): 520.

[103] "Doctors", Putnam's Monthly Magazine, 68.

published, anesthesia was one of the most mysterious and powerful medical innovations.

Charles Rosenberg argues that recognition of the link between the mind and body in illness played an important role in American therapeutics in the era preceding anesthesia's introduction. In the era *surrounding* anesthesia's introduction, this awareness of how the psyche influences bodily health and vice-versa likely set the stage for doctors to ease into the role of mediator in the moral, psychic and social issues of life:

> Healing, in early Nineteenth Century America, was in a great majority of cases physically and emotionally embedded in a precise, emotionally resonant context...Just as a man's body interacted continuously with his environment, so did his mind with his body, his morals with his health. The realm of causation in medicine was not distinguishable from the realm of meaning in society generally.[104]

Causal explanations for disease extended beyond the organic, to include the roles of a person's social interactions, as well as cultural and moral factors. Since these "non-scientific" phenomena were seen as intimately linked to health, they provided a rationale for physicians to expand their authority to include taking care of their patients' moral and social well-being. In this way, doctors played a role not only in the psychic and physical health of their patients, but also in the overall health of the community. As doctors gained respect, thanks in part to new tools like anesthesia, their esteemed role in the social world of nineteenth century America became more firmly entrenched.

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[104] Rosenberg, The Therapeutic Revolution, 10.

Notions of the link between the mind and the body may have preceded the introduction of the inhalational anesthetics, but anesthesia also helped elucidate and draw attention to this important relationship. Anesthesia focused attention on the interplay between the mind and the body in pain and suffering (and also, by contrast, pleasure). Dr. Atlee talked about how relieving the dread of a painful operation predisposes the surgery to a more successful outcome:

> We all know how intimate the relations are between the mind and body; and if we keep in view the old adage *sana mens in sano corpore*, the whole matter will be fully understood. The mind and nervous system being placed at ease under the belief that no pain will be experienced during an operation, no matter how severe, will diminish much the dangers of what all surgeons have too well known as the nervous shock, or that condition in which patients die from the immediate effect of operations.[105]

Anesthesia encouraged the medical profession to pay more attention to psychological issues when making therapeutic decisions. It is important to remember that most doctors in nineteenth century America were general practitioners who practiced in their patients' homes. A long tradition of personal relationships with patients, and knowledge of their personal lives, translated well into a growing concern for the impact of the psyche on suffering, happiness and health.

In his definition of "therapeutics", Charles Rosenberg highlights the significant roles of relationships, emotions and cultural values in healing:

> Therapeutics...involves emotions and personal relationships, and incorporates all of those cultural factors which determine belief,

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[105] Dr. Atlee, Medical Examiner, 317.

> identity and status...Both physician and patient must necessarily share a common framework of explanation.[106]

Rosenberg's definition of therapeutics seems to be close to the nineteenth century physician's notion of what therapeutics should involve. The nineteenth century doctor recognized the supra-scientific factors involved in physical well-being.

Rosenberg emphasizes that the doctor and patient both had to share a "common framework of explanation", meaning that they both had to recognize that illness exists in a wider social and cultural context. The differences between the doctor and patient, however, were perhaps more pronounced than their similarities. Doctors often viewed themselves in paternalistic roles as physical and moral caretakers; they believed that patients should put their faith and their lives in the hands of doctors. There was a discrepancy in the power and knowledge of the doctor and the patient. Doctors should act in the physical and emotional best interests of their patients, and patients should trust the wisdom and authority of their doctors. It was not necessarily a requirement that patients understand the nature of their illness, or the nature of their therapy - as long as they trusted their doctor. In an article in the Boston Medical and Surgical Journal, one doctor discussed his view of a doctor's monumental responsibility and monumental authority:

> [Physicians should be} pouring the oil of consolation into the wounded spirit, at the same time they are endeavoring to mitigate

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[106] Rosenberg, The Therapeutic Revolution, 2.

> physical suffering. To whom does the sick man look, in the hour of suffering, with so much confidence, as to his medical attendant? To whom are all the avenues of his heart so accessible? The issues of life and death are in his hands; nay, future and eternal interests are often poised upon the course he takes...That physician who has deliberately settled down in the decision that he has nothing to do with the moral well-being of his patient - of his dying fellow man - does not, I fear realize the responsibility of his calling.[107]

This doctor's discussion of the physician's privileged access to the hearts and minds of his patients is particularly applicable to the introduction of anesthesia. With the new anesthetics, doctors gained new access into the human subconscience. Some patients told their doctors about their anesthetic dreams and revelations once they woke up from the anesthetic stupor. What they revealed while under the effects of the anesthetic gases was information not even the patients, themselves, were aware of. They had to trust the doctor with their lives and their secrets. Rosenberg looks to Dr. Warren's "Diary of a Physician" to provide a powerful image of the vulnerable patient, exposed in body and mind, to the doctor:

> Warren's "Diary of a Physician" gives us an inkling of what varieties of human experience are exposed to his gaze. Vigils at the couch of genius and beauty, full of the stern romance of reality, or imbued with tenderness and inspiration are recorded in his heart. He is admitted to sanctums where no other feet but those of kindred enter. He becomes the inevitable auditor and spectator where no other stranger looks or listens. Human nature, stripped of its conventionalities, lies exposed before him; the secrets of conscience, t the aspirations of intellect, the devotedness of love, all that exalts and all that debases the soul, he beholds in the hour of weakness, solitude or dismay; and hard and unthinking must he be if such lessons make no enduring impression and excite no comprehensive sympathies.[108]

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[107] "Phocian's Sermon on the Duties of Physicians", BMSJ 36 (1846): 498.

[108] Ibid., 71.

Silas Weir Mitchell also described the physician's moral obligation to keep his patients' secrets. Patients had to trust their doctors - because so much was at stake. In order to best be helped, one had to give his or her doctor as much information as possible. The following comment does not specifically refer to anesthesia, but it is still applicable:

> He [the physician] must guard the secrets wrung from you on the rack of disease. He is more often than he likes a confessor, and while the priest hears, as I have once said, the sins and the foibles of to-day, he is as like as not to hear the story of a life. He must be what About calls him, "Le tombeau des secrets," - the grave of secrets. How can he be too prudent or too close-mouthed? Honor you must ask of him for you must feel free to speak. Charity you should expect from him, for the heart is open to him as it is to no other, and knowledge, large knowledge, is the food which nourishes charity in the tender-hearted.[109]

With anesthesia, you had to trust your doctor even more, because now he could hear things you may not have intended him to hear. Not only that, but he could also perform procedures on you, while you were asleep, that you were not aware of. Patients depended on their doctor's honesty and integrity. They had to trust that their doctor would inform them about procedures under anesthesia.

The intimacy and power dynamics between the doctor and patient made their relationship not only vulnerable, but also potentially volatile. The following comment highlights that patient attitudes towards doctors vacillated (and continue to vacillate in present times) between extremes - of

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[109] Mitchell, The Physician, 43.

Sims Wyeth Kimball also [illegible]

keep his patients' secrets. [illegible]

was at stake. In order to [illegible]

much information as possible. [illegible]

refer to anesthesia. Can it be [illegible]

> He [illegible] everything [illegible]
> sick or [illegible]
> the [illegible]
> but [illegible]
> only [illegible]
> be [illegible]
> your [illegible]
> the [illegible]
> knowledge [illegible]
> [illegible]

With anesthesia [illegible]

could hear [illegible]

he could also [illegible]

were not [illegible]

They had to [illegible]

under anesthesia.

The [illegible]

inside their [illegible]

following [illegible]

ventilated [illegible]

[illegible]

love and adoration when things were going well, and of mistrust and anger when things were not:

> The intercourse of the physician with his patient is not a mere cold, business matter, but is connected with some of the strongest and tenderest feelings of the human heart. And if there be something like affection in the feelings of the sick towards their physician, there is often, by a natural consequence, not a little proneness to jealousy. The excited state of mind, produced by sickness and suffering, while it increases the susceptibility to the attentions and sympathy of the physician, adds also to the sensitiveness to any omission, whether real or apparent, and opens the ear to any unfavorable suggestion however slight.[110]

A good description of the extremes and intensity of the doctor-patient relationship appeared in "Doctors" from Putnam's Monthly Magazine:

> To how many their visit [the doctors'] is the one daily event that breaks in upon the monotony of illness and confinement; how many eyes watch them with eager suspense, and listen to their opinion as the fiat of destiny; how many feverishly expect their coming, shrink from their polished steel, rejoice in their cheering ministrations, or dread their long bills! "The doctor!" -- a word that stirs the extremest moods -- despair and jollity.[111]

Imagine the anticipation of surgery before and after the introduction of anesthesia. Both situations elicited extreme emotions - fear of the imminent pain the surgeon would produce before anesthesia, and fear of the unknown anesthetic and an 'artificial death' after the introduction of anesthesia. When anesthesia was successful, patient gratitude and reverence towards his or her doctor swung the balance in the extremes of the doctor-patient relationship towards adoration of, and enormous respect for, the doctor.

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[110] "Character and Abuses of the Medical Profession", North American Review 32 (1831): 377-8.

[111] "Doctors", Putnam's Monthly Magazine, 66.

Doctors as moral guidance counselors

While it is true that many doctors felt obligated to treat their patients' psychic suffering and ensure their moral well-being, this new role was not only born out of a sense of obligation, but also out of a sense of entitlement. Doctors believed they should play this role because of their new therapeutic successes and their growing powerful and honored position in American society. Many doctors wondered who was better suited than they to take care of the intimately linked moral and physical well-being of the people. After all, they were members of the most humane and noble, reasonable and moderate, profession.

Silas Weir Mitchell was one doctor who believed that since pain was a moral issue, doctors, as caretakers of pain, were moral guardians. Although he did not argue that pain was a necessary or good phenomenon, he did believe that the graceful endurance of pain was an admirable moral strength.[112] He greatly feared the addictive potential of pain medicine and felt that it was a doctor's duty to carefully monitor its use to avoid future problems of addiction. At times, the doctor must be hardened to his suffering and pleading patient. He describes a kind of tough sympathy, where the doctor has complete control over the patient's pain medication for the good of his or her own "body and soul", because pain is an "ordeal of character":

> If he [the doctor] be weak, or too tender, or too prone to escape trouble by the easy help of some pain-lulling agent, she is soon on the path of the opium, chloral, or chloroform habit. Nor is prevention easy. With constant or inconstant suffering comes

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[112] Mitchell, "Pain and it's Consequences", in Doctor and Patient, 91.

Doctors as moral guidance counselors

While it is true that many

psychic suffering, and

only because of a sense of

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Silas Weir Mitchell

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> weakness of mind as well as body, and none but the strongest natures pass through this ordeal of character unhurt.[113]

For Mitchell, the discovery of anesthetics and a better means of pain control, were double-edged swords. The negative side was that they could become a will-softening "luxury". He was very wary of the attitude that it is "easy and right" to escape even the briefest of pains, and felt that doctors, with their too liberal use of pain relievers had shirked the "vast moral responsibilities" of their position.[114]

Mitchell concluded that the doctor's most "genuine sympathy" involved being a moral guidance counselor. One of his roles was to lead the patient on the path to a "good" life, and part of this sympathetic duty involved giving the patient "a larger view of the uses of pain and distress". Mitchell believed in the tender, but firm physician who "forces" his patients to deal with their pain in a strong manner, rather than let them wallow in their suffering.[115] He also argued that the best patient was the compliant, all-trusting one: "Wise women choose their doctors and trust them. The wisest ask the fewest questions"[116]. In his mind, the good doctor was the icon of wisdom and virtue: "As a profession, it is my sincere conviction that in our adherence to a high code of moral law, and in the general honesty with which we do our work, no other profession can be compared with ours"[117]. Although Mitchell may have had reservations about the too liberal use of

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[113] Ibid., 93.
[114] Ibid., 94.
[115] Ibid., "The Physician", 45.
[116] Ibid., 48.
[117] Ibid., 49.

anesthetics and pain killers, he certainly had no reservations about the wisdom and nobility of his profession.

Dr. Henry Maudsley also talked about the importance of moral virtue in medicine. He stressed that a doctor's moral qualities surpassed in importance his knowledge and intellect:

> Great as is knowledge, the moral nature is greater still; that the impulses of evolution which move the world come not from intellect, but from the heart; that he who would work upon the hearts of others must speak to them from the heart; that everywhere and always we have to recognize the predominance of the heart over the intellect.[118]

Dr. Maudsley emphasized that doctors are not only models of moral virtue, but also caretakers of the moral and social behavior of their patients, since these are crucially related to health:

> From the beginning, it may be said, men have, through unrestrained indulgence of their passions, generated disease, and however pure their surroundings may be made, they will go on doing the same thing: were a clean sweep made of all disease from the face of the earth tomorrow, they would breed it afresh before tomorrow's morrow. No doubt as they are constituted and trained at present, they would be apt to do so; but one may hope that the medical science of the future - and here I could carry your imaginations a little way with me - will have a great deal to say in the way of instruction respecting the highest concerns of man's nature, and the conduct of his life; that it will enter a domain which has hitherto been given up exclusively to the moral philosopher and the preacher.[119]

Once again, we are reminded of the transfer of power from religion and philosophy to medicine that took place in nineteenth century America. Dr. Maudsley firmly believed that the power of his science gave him the liberty

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[118] Henry Maudsley, MD, "The Medical Profession in Modern Thought", Popular Science Monthly 10 (October, 1876): 331.
[119] Ibid., 341.

and the responsibility to go outside the mere science of therapeutics, and to try to heal the moral character of his patients and the community. He saw doctors replacing philosophers and religious leaders as advisors to the public.

What gave nineteenth century American doctors a sense that they had such influence over their patients' psyches and social and moral conduct? Doctors were not necessarily more qualified than before to interpret their patients' psychological states, or to determine what is morally acceptable, but they believed themselves to be. Their new prestige, power, and heightened self-esteem gave them a sense that they were capable and justified in their new, broadened roles . A very telling portion of the article "Doctors" from Putnam's Magazine listed doctors who had excelled in non-medical fields, in order to justify the expanding role of doctors in the non-medical, and more philosophical, aspects of life:

> In literature the doctor figures with a genial dignity; he has affinities with genius and a life-estate in the kingdom of letters: Witness...in our own day, Moir's exquisite domestic lyrics, Lever's Irish novels; and in our own country, the writings of Drake, Mitchell, Holmes, Bigelow, Francis and others...Think of Garth ministering to Johnson, and Rush philosophizing with Dr. Franklin; Bell's comment on Art, Colden's letters to Linnaeus, and Thatcher's Military Journal, are attractive proofs of that liberal tendency which leads the physician beyond the limits of his profession, into the field of philosophical research.[120]

The domain of the American physician was getting ever larger.

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[120] "Doctors", Putnam's Monthly Magazine, 69.

Doctors as detectives

As doctors became more involved in the social and moral concerns of their patients, they not only became guardians of their patients' general welfare, but in some instances they also became detectives. The new anesthetics may have helped doctors reflect on their philosophical responsibilities in the relief of suffering, but on a more basic level, anesthetics were also legal tools - "truth serums", so to speak - that could ferret out those people who were faking illness. "The practical application of ether to medical jurisprudence to distinguish feigned from real disease" appeared in the Boston Medical and Surgical Journal of 1847. This reprint from the London Lancet described a case of a man who had applied for military discharge due to spinal curvature. Ether was administered and "he lay quite prone, all curvature having disappeared, the deception the man practised was now clearly proved"[121]. The "caring" chemical was now being used to uncover dishonest patients. The new anesthetics were such an important and powerful innovation in medical therapeutics, that doctors likely wanted to explore all the possible applications of this new tool. Dr. John C. Warren supported doctors' use of anesthetics to play the role of detective. He argued that anesthetics were especially useful to detect feigned diseases among the poorer classes, whom, he believed, were occasionally using illnesses to try to seek benefits:

> Feigned diseases - Ether has been employed successfully to detect the imposture of feigned diseases. In Europe it is not uncommon

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[121] BMSJ 36 (1847): 367.

> among the poorer classes to find individuals who, in order to excite compassion, obtain charity, procure admission to a hospital, or avoid some unpleasant requisition, feign contractions of the limbs, deafness, inability to speak, etc. Etherization overpowering the will which maintains these appearances, the contracted muscles relax, the deaf man hears, and the dumb speaks. Although such impositions are comparatively rare in this country, we have occasionally seen them, and had opportunity of observing the temporary restoration of limbs affected with distortions, which before seemed permanent. [122]

Warren did not give any hint of reservation about the expansion of the doctor's role into the legal world. Neither he, nor the doctor writing in the Boston Medical and Surgical Journal, addressed the possibility that the use of anesthetics for detective work was ethically or morally questionable. They did not worry about jeopardizing patient trust. They saw yet another use for their marvelous new tool, and seized the opportunity.

On the other side of the legal fence, anesthetics could be used for nefarious purposes. Doctors feared that criminals could anesthetize their victims and then physically assault them or steal their possessions. Dr. John C. Warren acknowledged fears that anesthetics could also be used as murder weapons, and claimed that it was the doctor's duty to become acquainted with the signs of "anesthetic death" on a cadaver.[123] Dr. Warren also recognized the possibility that unethical colleagues might take advantage of their anesthetized female patients. He advised that in order for doctors to protect themselves from accusation, and in order for patients to protect themselves

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[122] J.C. Warren, "Etherization", 54.
[123] Ibid., 33.

among the [illegible]
compression, [illegible]
some unpleasant [illegible]
diathesis, [illegible]
which [illegible]
the [illegible]
importantly, [illegible]
occasionally [illegible]
[illegible]
sealed [illegible]

Warren did not give [illegible]

doctor's visit into the [illegible]

Boston Medical and Surgical [illegible]

anesthetics for [illegible]

not worry about [illegible]

marvelous [illegible]

On the other [illegible]

infamous [illegible]

victims and [illegible]

Dr. Warren's knowledge [illegible]

weapons, [illegible]

the sight of [illegible]

the possibility [illegible]

unanticipated [illegible]

themselves from [illegible]

[illegible] Warren, [illegible]

[illegible] Ibid., 35.

from harm, there should always be a chaperone present when a female was anesthetized.[124]

Anesthesia had the potential to be used as a murder weapon, or for other criminal purposes, but it also had the potential to provide a legal defense. Dr. Quimby gave an account of a woman who, in defending an accusation that she killed her husband, claimed that the murderer chloroformed her while she was sleeping. The murderer then proceeded to kill her husband, while she remained completely unaware of the crime. Dr. Quimby was asked to determine whether someone could be chloroformed without their being aware of it, and he concluded that this was indeed possible:

> A person somewhat skilled in the use of chloroform may enter the sleeping apartment of a person or persons and administer the drug with evil intentions. Hence, the use of chloroform in the hands of the criminal may become an effective instrument in the accomplishment of his nefarious designs.[125]

Anesthesia became a tool for both sides of the legal spectrum - as a weapon, and as a tool to uncover crime. In the middle, doctors stood as arbiters in these legal questions.

Doctors as demi-gods and heroes

We have seen how doctors felt about their new power and expanding roles in society, but how did the patients feel about doctors in the era after anesthesia's introduction? First, we have to reconsider the paradox of

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[124] Ibid., 34.

anesthesia. It was a caring heroism that lay between medical heroism and medical nihilism, and, for many, included the best of both. Many patients viewed doctors in somewhat mythic proportions. Anthropologically, healers have often been described in mythic, almost supernatural terms. While the nineteenth century American "regular" practitioners were "modern" Western healers, David Landy's notion of the mystical primitive healer still has some application:

> Anthropologists and others have conceptualized classically the role of the healer primarily as mediator between ordinary persons and in their earthly environment and the spiritual world, attaining this position through special endowment, achievement, or spiritual selection. The healer possesses special secret or semisecret knowledge, some of which may not even be shared with other healers...[126]

American physicians may not have been mediators between their patients and God, but they did possess 'secret' knowledge and wonderful and mysterious tools, like anesthesia, that convinced patients, and the doctors themselves, that they were heroic figures who had connections to the most noble and important facets of life.

Even before anesthesia, some doctors were seen in mythic proportions. However, this was often based on fear. Pre-anesthesia, many patients saw the doctor as their last chance, the last hope, and the last heroic effort before they met the grim reaper. Anesthesia helped transform doctors into more "benign heroes". Doctors still lost patients in and out of surgery, but now

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[125] J.N. Quimby, "On the Criminal Use of Chloroform", Transactions of the American Medical Association xxxi (1880): 521.

they could take care of one of the most feared horrors in life - surgical pain. The magnitude of this mysterious new scientific discovery also gave the public faith that new, great medical discoveries were to come. These changes helped give the public new trust in the "regular" practitioners. The physician was no longer such a fearsome creature who made therapeutic stabs in the dark in an attempt to cure. He now addressed relief of suffering in a formal and monumental way, and won a new trust and a new reverence from his patients.

A comparison of pre- and post-anesthesia perceptions of doctors helps elucidate the depth of change in the public's opinion of physicians. Victor Robinson describes a patient waiting for the surgeon, in the era before anesthetics, as if the patient were a convicted, incarcerated criminal, waiting for his executioner:

> Before the days of anesthetics, a patient preparing for an operation was like a condemned criminal preparing for an execution. He counted the days until the appointed hour came. He listened for the echo on the street of the surgeon's carriage. He watched for his pull at the door-bell; for his foot on the stair; for his step in the room; for the production of his dreaded instruments; for his few grave words; and his last preparations before beginning. And then he surrendered his liberty, and revolting at the necessity, submitted to be held or bound, and helpless - he gave himself up to the cruel knife...[127]

Attempts to relieve surgical pain were either non-existent, as in the above description, or else minimally effective. Still, the practitioners who tried various pain relieving techniques such as nerve compression and

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[126] David Landy, "The Healers: Statuses and Roles", in Culture, Disease and Healing: Studies in Medical Anthropology, 396.
[127] Robinson, Victory Over Pain, 215.

mesmerism, often saw themselves as heroes. As historian Thomas Keys describes in The History of Surgical Anesthesia, Dr. Mesmer - the proponent of mesmerism (a form of hypnosis) and animal magnetism in the eighteenth century - saw himself as a sort of grand healer and demi-god.[128]

In the era following anesthesia's introduction, how did patients really feel about their doctors? Did they see them as heroes? It is not easy to find many patient accounts of doctors from this era - most patient accounts were actually given by their doctors. We do find, however, some compelling evidence that patients saw their doctors in a new powerful and benevolent light. The language lay people used to describe doctors is particularly informative. In his poem "The Chief" from In Hospital, William Henley gave us a portrait of a noble, wise, calm heroic doctor, likened to Heracles, who battled the scourges of disease and death:

> His brow spreads large and placid, and his eye
> Is deep and bright, with steady looks that still.
> Soft lines of tranquil thought his face fulfill -
> His face at once benign and proud and shy.
> If envy scout, if ignorance deny,
> His faultless patience, his unyielding will,
> Beautiful gentleness and splendid skill,
> Innumerable gratitudes reply.
> His wise, rare smile is sweet with certainties,
> And seems in all his patients to compel
> Such love and faith as failure cannot quell.
> We hold him for another Herakles,
> Battling with custom, prejudice, disease
> As once the son of Zeus with Death and Hell.[129]

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[128] Thomas Keys, The History of Surgical Anesthesia (New York: Schuman's, 1945), 11.
[129] William Earnest Henley, "The Chief", #15, from "In Hospital, 28 sketches, 1873-1875", in Poems, Vol.I (London: David Nutt, 1908), 25.

The changing relationship between the doctor and patient, in which patients increasingly looked up to doctors, was also revealed in less literary and dramatic ways. One boy after inhaling ether for a tooth extraction described "a first rate dream - very quiet...not the slightest consciousness of pain", and he left, feeling "no uneasiness of any kind, and evidently in a *high state of admiration*"[130]. In Littel's Living Age, a popular magazine of the day, an article was reprinted from the North British Review, "Painless Operations in Surgery", that described a speedy and vulgar pre-anesthesia surgeon who would "sacrifice his patients' best interests in favor of his own precarious and ephemeral reputation". It then goes on to depict the post-anesthesia surgeon as a more caring, admirable healer who no longer finds it his mission only "to cut"[131].

Doctors, themselves, gave the most powerful statements that they had reached a kind of noble heroism. Once again, it is important to pay attention to the language doctors used. Mitchell, in The Doctor and Patient said, "There are, indeed, diseases which can only be helped by heroic measures; but, in this case, were I the patient, I should like to be pretty certain as to the qualifications of my hero"[132]. Mitchell clearly felt that there was a wide range of talent within the profession, but his language suggests that he did believe doctors had the potential to be true heroes. He believed medicine to be one of the most admirable of professions, where a doctor's life is "one long training

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[130] H.J. Bigelow, "Insensibility During Surgical Operations Produced by Inhalation", BMSJ 35 (1846): 309.
[131] "Painless Operations in Surgery", Littel's Living Age No. 161, 12 June 1847.

ground in charity, self-abandonment, all forms of self-restraint...in no other occupation is there such constant food useful to develop all that is best and noblest"[133].

Dr. D.W. Cathell, a physician in the mid to late nineteenth century, and a one time president of the American Medical and Surgical Society, argued that medicine had achieved a level of power and prestige seen only before in the professions of law and religion:

> As rational liberal physicians, we, unlike the various "limited schools", accept all truths, whether winnowed from past experience or discovered in our own days; and stand ready to receive and utilize any and every valuable discovery, no matter when, or by whom made. This explains why ours is a liberal profession, and why the Physician takes rank with the Lawyers and the Clergymen. This trio of rofessions was long ago styled "The Liberal Professions", because their devotees have, in all ages, pursued them as freemen, subject to no bonds except those of truth...This adaptability is our strength and our glory, and is the element that will make regular, liberal, rational medicine exist as long as there is sickness and suffering in the world.[134]

Dr. Cathell held that the potential of medicine to do good for science and, more importantly, humanity, was almost limitless. He had complete faith that medicine had reached a position of glory.

Dr. Maudsley took Cathell's belief in the enormous potential of medicine one step further. He believed that it was science and medicine's destiny to elevate mankind to a higher moral, spiritual and social level of existence. He had complete confidence in medical progress, and through it,

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[132] Mitchell, "The Physician", from The Doctor and Patient, 29.
[133] Ibid., 49.
[134] D.W. Cathell, The Physician Himself and What He Should Add to the Strictly Scientific (Baltimore: Cushings and Bailey, 1882), 140.

achievement of the good. Doctors and scientists were at the helm of this journey:

> For the problem of to-day is truly no longer the schoolmen's much-vexed question of the origin of evil, but the question of the origin and growth of good...The time, in fact, has come when mankind should awake to the momentous reflection how great is the power which it may exert over its own destiny, and to the resolution methodically to use it. In fulfilling this paramount duty, upon whom will the function of inquiry and instruction immediately rest, but upon those who make the laws of vital development and function their study, and the application of the knowledge to further the well-being and development of the organism their work? Clearly, the medical investigator need not lapse into despair because no new conquests to make.[135]

Maudsley gave us the image of the doctor as crusader. The doctor was a hero who would make conquests for the good of humanity. He placed physicians in the lofty company of philosophers, poets and teachers:

> Science has not rendered the philosopher, the poet, and the moral teacher superfluous, nor will it ever supersede them; on the contrary, it will have need of them to attain its own perfect working to the bettering of man's estate.[136]

Maudsley said that doctors would not supersede other thinkers, but the language he used suggests that the philosophers, poets and moral teachers were really tools for the true leaders and heroes, doctors, to use as they worked to achieve the good.

While doctors and many of their patients considered physicians to be wise and powerful healers and leaders, not all perceptions of physicians were glowing. It was the recognition of doctors' incredible new power and influence that terrified some. They feared abuses of this power. Catherine

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[135] Maudsley, "The Medical Profession in Modern Thought", 343.

Beecher was one commentator of the day who was wary of the expanding authority of the physician in this transitional time in American medicine - this time of new discoveries and controversies. She feared that there would be harmful consequences when doctors no longer looked to religion, but to nature, pure science and their own intuition for their therapeutic philosophy, and their *philosophy of how one should lead his or her life.* She feared doctors would pass this philosophy onto their patients as if it were gospel:

> He [the physician] has read the writings of the semi-infidel school, till he has lost all reverence for the bible as authoritative in faith or practice. Of course he has no guide left but his own feelings and notions. Then he gradually adopts the above views in physiology and social life, and really believes them to be founded on the nature of things, and the intuitive teachings of his own mind...he leads his patients to adopt his views of truth and right on these subjects...[137]

Catherine Beecher also believed that doctors frequently stepped over the moral and ethical line, not only in what they 'preached' to their patients, but in their treatment of patients:

> So numerous were the instances that came to my knowledge unsought, and from so many different and unsuspected directions, and these cases involved so many guilty perpetrators, not only those connected with health establishments, but in private practice...[138]

Beecher was especially concerned with abuses of the new anesthetics. Anesthesia gave doctors a tremendous power by placing patients, especially women, in a very vulnerable position where they were subject to the perversions of unethical doctors. Beecher wrote that she had received many letters from women citing abuses, such as fondling and rape, and she was

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[136] Ibid., 348.
[137] Beecher, Lettters to the People on Health and Happiness, 137.

now seeking protective customs for women undergoing procedures with anesthetics. In the following comment, she criticized the use of mesmerism and animal magnetism in surgery. This same argument applied to ether and chloroform, which she mentioned later in the article:

> In the medical world, new and powerful agents have been discovered, that are serviceable both in dentistry and medical treatment, and yet involve great liabilities to dangerous perversions. Among these are animal magnetism and its kindred developments...[There exist] methods of medical treatment at once useless, torturing to the mind, and involving great liabilities to immoralities...At the same time, the medical profession, in view of such disclosures, can not but feel their horror, as well as the safety of women, demands some protective customs, which shall be stringently enforced by their decided authority.[139]

Dr. C. R. Gilman was one of many doctors who recognized and echoed Beecher's concerns about the potential risks and abuses of the new anesthetics. On the other had, he believed that the benefits of surgical anesthesia far outweighed the risks:

> Shall we banish anesthetics from our materia medica - proscribe their use? Plainly this is impossible. We cannot and will not give up the use of an agent which in our hands relieves suffering, cures disease, saves lives - as we know chloroform does - because other men abuse it.[140]

Beecher herself was not naive. At the same time that she feared medicine's growing power, she also acknowledged, like Dr. Gilman, that it's growth was unstoppable. She appealed to doctors to use their power to fight immorality and the abuses of power existing in their profession.

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[138] Ibid., 137.
[139] Ibid., 159-160 & 163.
[140] C.R. Gilman, "Thoughts on Chloroform", N.Y. Medical Times 2 (1852): 7.

Did the rise in the doctor's respectability, power and self-esteem, thanks in part to the introduction of anesthesia - the "caring chemical" - bring about a paradoxical insensitivity towards patients in some doctors? Since surgeons could traditionally do little to relieve their patient's pain, the use of the inhalational anesthetics in surgery presented them with a dramatic contrast to the earlier agonizing operations - a contrast that made them heady with success and power. The new tool of anesthesia likely expanded their self-esteem and confidence in their abilities, perhaps to the point where some felt they were irreproachable. After all, not only had they given their patients the gift of pain-free surgery, the surgeries themselves were easier to perform, and more daring and complicated surgeries could be undertaken. It is ironic that a tool that was symbolic of caring might have ultimately produced a cavalier and insensitive attitude in some doctors.

Louis May Alcott wrote her Hospital Sketches a good fourteen years after the introduction of anesthesia. Indeed, she gives several accounts of field operations where anesthesia was administered; however, her descriptions of surgeons were often unflattering. Some surgeons seemed so focused on their power, skill and technique that they saw patients more as surgical subjects and a collection of body parts than as human beings and suffering individuals. The following expressed her feelings about a certain surgeon she called Dr. P:

> I obeyed, cherishing the while a strong desire to insinuate a few of his [Dr. P's] own disagreeable knives and scissors into him, and see how he liked it. A very disrespectful and ridiculous fancy, of course; for he was doing all that could be done, and the arm

> prospered finely in his hands. But the human mind is prone to prejudice, and though a personable man, speaking French like a born "Parley voo", and whipped off legs like an animated guillotine, I must confess to a sense of relief when he was ordered elsewhere; and suspect that several of the men would have faced a rebel battery with less trepidation than they did Dr. P, when he came briskly on his morning round.[141]

Another example of a callous doctor, or at the very least a callous statement, appeared in the American Medical Monthly in 1857, in which Dr. A. L. Carrol talked, in denigrating terms, about one of his patients who requested anesthesia:

> The other case to which I have alluded, was that of a gentleman who was operated on for a varicocele, and whose timidity induced him to insist upon taking chloroform.[142]

Dr. Carrol implied that it was a sign of weakness and cowardice for this patient to want anesthesia for his operation. When interpreting negative comments like these, it is once again important to consider the idea that the shift to both a more powerful and *caring* medical institution was more of an evolution than a revolution. Many doctors became more powerful and self-confident, but not all of them became significantly more aware of, and sensitive to, the suffering of their patients.

Mary Douglas provides a strong anthropological argument for this relatively slow transformation in medicine. She points out that the more uncomfortable or ambiguous and mysterious an innovation or an idea, the more difficult it is to assimilate into our existing schema - our existing

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[141] Alcott, Hospital Sketches, 98.

[142] A.L. Carrol, "Is suspended animation during anaesthesia always attributable to the anaesthetic?", American Medical Monthly VII (1857): 12.

patterns of thought and action. We are comfortable with the familiar, so when something new comes along, it takes enormous effort and time to evaluate and accept the new, and change the old.[143] Anesthesia, and the power it gave medicine over pain, was remarkable, terrifying, and unfamiliar. It was a launching point for doctors to re-evaluate their responsibilities and roles towards patients, and it led them into realms beyond the scientific - moral, social and philosophical. Anesthesia was, in short, a major threat to what Mary Douglas would call the "existing medical schema", and thus any changes it produced in redefining medicine were complicated and not immediate.

Shryock makes an important distinction between the patient's respect for his or her individual doctor, and the profession as a whole. One could have great trust in his own doctor, while mistrusting the profession in general:

> Most important on the psychic side was the influence of his [the doctor's] own authority and personality. Here he was aided by the almost instinctive desire of patients to have faith in the man to whom they entrusted their lives...Although there was a growing tendency after 1830 to distrust medical science in general, even the person who shared this feeling was apt to believe that his particular physician could always be of help.[144]

Shryock's point about patients having faith in their own doctor is an important one. An article on the "Character and abuses of the medical profession", appearing in the North American Review, supports Shryock's

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[143] Mary Douglas, Purity and Danger: An Analysis of Concepts of Pollution and Taboo (New York: Frederick A. Praeger, 1966), 37-38.
[144] Shryock, Medicine in America, 162-163.

argument that individuals were more respected than the institution as a whole:

> As a community, physicians are, more than most classes of men, made the butt of ridicule, and not unfrequently the subjects of sweeping and unsparing censure, while as individuals, no class of men are more honored and trusted.[145]

It is especially fruitful to apply this focus on positive individual doctor-patient relationships to the case of anesthesia, and the changes it helped bring about in the medical profession. It makes sense that faith in the medical institution would develop after one had faith in his or her own personal doctor. For the patients whose surgeons used the new anesthetics and addressed their suffering in a more serious and humane way, we can imagine that their faith in surgeons increased exponentially. With this new respect, perhaps it was easier to listen to and believe in their doctor's advice about other medical therapies, and even social and moral issues. Ultimately, over time this led to a trust of and respect for medicine on a general and cultural level. Mary Douglas discusses how it is much harder for whole cultures to assimilate new and uncomfortable "anomalies". Individuals can have private feelings about the new "anomaly", but general, public acceptance takes more effort and time:

> Culture, in the sense of the public, standardised values of a community, mediates the experience of individuals. It provides in advance some basic categories, a positive pattern in which ideas and values are tidily ordered. And, above all, it has authority, since each is induced to assent because of the assent of others. But its public character makes its categories more rigid. A private person may revise his pattern of assumptions or not. It is a private matter. But cultural

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[145] "Character and Abuses of the Medical Profession", North American Review 32 (1831): 367.

> categories are public matters. They cannot so easily be subject to revision. Yet they cannot neglect aberrent forms...[146]

Anesthesia, and the changes it wrought in medicine, likely *did* begin on a private scale, between individual patients and doctors. This process started from the first day anesthesia was used publicly in surgery in 1846. Still, both doctors and the public they served had to confront and assimilate anesthesia, and the questions it raised about the structure and aims of the medical profession, on a more global scale. This cultural, rather than individual, process was more complex and challenging, and therefore was an evolution, not a revolution.

VI. Concluding Remarks

Whether in personal relationships between patients and their doctors, or on a general level, in the public's attitude towards the medical profession, a transformation took place in nineteenth century American medicine. Anesthesia played a significant role in this metamorphosis. The fundamental, emotionally and psychically charged issues surrounding pain and suffering were voiced in the medical arena. The active attempt by doctors to define the purpose and role of pain in health and life, and then to figure out what to do about pain, involved combining elements of mystery and faith with scientific empiricism in the enormously powerful and appealing, and sometimes fearful, combination that was anesthesia. Many people had a

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[146] Douglas, Purity and Danger, 39.

newfound respect and trust in doctors, and doctors themselves had a new confidence in their tools, intellect, and in their power to be community leaders, both in health and in the realms of social and philosophical life. The alternative healer still had his place, but more and more, the public was seeking out "regular" practitioners.

The fact that anesthesia abolished surgical pain so reliably was one of its greatest strengths, but it was really the combination of its elements of hard science and mysticism and symbolism that gave the new tool, and the wielders of the new tool, doctors, such power. As David Bakan says in his article on "Pain and the Functions of Ego", pain encourages reflection on basic questions of the human condition:

> Pain is the common companion of birth and growth, disease and death, and is a phenomenon deeply intertwined with the very question of human existence. It is among the most salient of human experiences; and it often precipitates questioning the meaning of life itself.[147]

Anesthesia insinuated itself into the symbolism, mystery and philosophical power of pain. This, not simply the fact that it worked, made it a revelation for nineteenth century America.

Anesthesia may have taken care of only one small portion of human suffering, but that one portion was very significant in medical history. For many people, anesthesia and the new confidence it brought to doctors appealed to both their medical and their psychic needs. Some were wary of

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[147] David Bakan, "Disease and the Functions of the Ego", in Disease, Pain and Sacrifice (Chicago: University of Chicago Press, 1968), 57.

the new anesthetics and medicine's new control over pain. The power of doctors over pain, and the power of doctors over us, the suffering public, was controversial then and will always remain so. We are faced today with the same aches and pains as our nineteenth century counterparts. There is more today in the arsenal against pain, but we continue to suffer and to seek relief. We participate in relationships with our doctors which are constantly in flux, and which always involve more than the physical. Emotions, moral concerns and vulnerabilities come with us when we walk into our doctor's office. We hope for the physician who is sensitive to these issues. Many of us have come to expect that our physician will be this kind of doctor. Sometimes he or she is not. Sometimes we are offended by the doctor who pays too much attention to our personal problems and psychic suffering. Still, most of us appreciate the doctor who is confident and powerful, and yet humane and sensitive. Over one hundred years ago, the introduction of the inhalational anesthetics helped guide the evolution of this kind of doctor. It has been a complex and imperfect evolution, but a monumental and hopeful evolution, nonetheless.

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