Sister Elizabeth Kenny's Methods:
Freedoms, Knowledges and the Making of History

by

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B.S.N., University of Victoria, 1994

A Thesis Submitted in Partial Fulfillment of the
Requirements for the Degree of

MASTER OF NURSING

in the Department of Human and Social Development

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ABSTRACT

Using a Foucauldian form of discourse analysis, this historical study explores the methods of poliomyelitis rehabilitation developed between 1911 and 1952 by an Australian nurse, Sister Elizabeth Kenny. The author takes a novel approach to constructing a historical account of Kenny and her work, exploring the ways in which Kenny's practices evolve through an analysis of statements about the body receiving rehabilitation. The author's main argument is that Kenny's practices, and in accordance with them her concept of the body in poliomyelitis, constitute a breach in two narratives of medicine, progress and war, providing an opportunity to envision other possibilities for the body, hence other possibilities for the poliomyelitis survivor and those providing healthcare for the disease.

The author explicates the power associated with knowledges of the body and determines Kenny's knowledge to have currency in discourse because of direct impact her practices have on the body. Added to its undeniable benefits for the corporeal body, Kenny's work is textualized and circulated in discourse in unconventional ways, ignoring the rules established in the scientific community regarding the development of healthcare entities. It thus emerges as the first poliomyelitis treatment accessible to those inside and outside of medical science. For this reason, the author examines how the 'truth' about Kenny's practices emerge in relation to the unique positions they sustain in discourse.

The author also considers that nurses can take a more critical stance toward their accounts of the body in front-line practice. To address this issue, the author suggests nurse historians, writing within the literary realm, may be freed from the constraints placed on scientific representations of the body in medicine. Thus, nurse historians have the potential to generate narratives that promote critical examination of the medicalized body.

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Preface

There are thousands of fascinating stories about the disease Poliomyelitis, or polio, also known by the name infantile paralysis along with a host of other terms. I started reading about polio in the early 1990's, when I was enrolled in an undergraduate nursing program, because polio is part of my family history. My aunt was struck by the disease at age five in the summer of 1940, after playing a great deal in the lake near the cottage. Her story, she says, is a "typical polio story." As a small child, she acquired the disease during *polio season*, which occurred between late Spring to mid-Fall in most of North America (in warmer climes, polio has no season). During the polio season, families were outdoors more; people congregated on the streets, in parks, and on beaches. Thus, polio was thought to be a communicable disease spread through direct contact, and quarantine was issued to all households containing individuals with the disease. Since many became ill when at the beach or cottage, polio was also associated with immersion in water. Somehow there was a connection, people thought, between being chilled after swimming and being struck by the disease.

By the early 1990's, my aunt was re-experiencing weakness, pain, extreme fatigue and muscle atrophy as a result of *post-polio syndrome*, a phenomena that presents in polio survivors on average 30 years after the onset of acute polio, although the range of onset is noted to be 5 to 6 years (Aston, 1992; Dean, 1991; Feldman, 1985; Holman, 1986; Ramlow, Alexander, LaPorte, Kaufmann, & Kuller, 1992; Salazar-Grueso et al., 1990). For my aunt, post-polio syndrome marked the second time that polio had robbed her of a life without constraints on her physical abilities. She had, like thousands of others in North America and Europe, overcome the initial impact of polio on her body

through an arduous process of rehabilitation. Family stories suggest my aunt was lucky. On the sixth month of her stay on a Nightingale ward at the local children's hospital, she began to receive the *Kenny Method*, a system of hot "fomentations" (also known as *hot packs*, the term I use for the remainder of this paper) and exercises that together prevented significant deformity and its resultant disability.

This attempt at rehabilitation was initially half-baked because of nursing shortages. My grandparents discovered my aunt was left for long periods without attention in the hospital, so that her hot packs became very cold and extremely uncomfortable. The nurses also did not have time to feed their patients and would leave my aunt's food tray in front of her. She was paralyzed in the arms so the food often went uneaten unless my grandmother was present to come to my aunt's aid. Luckily, my grandmother was able to attend an education session regarding the Kenny Method, which could be performed, in part, at home. She learned my aunt's muscles were in spasm that could be alleviated by the use of hot packs, the application of which she was made aware. She also learned exercises to be carried out with my aunt, and discovered the benefits of massage.

At home, the dining room was converted into my aunt's bedroom. It was next to the kitchen where the wringer washer had been set up, allowing for my grandmother to wring out completely strips of wool that had been soaked in boiling water, while also attending to the tasks of running a house, which included the care of her infant son. Granny applied the hot packs on a rotating basis to my aunt's affected limbs, after which she performed exercises and massage. To make the massage easier, Granny got a hold of some olive oil from the black market (because of its scarcity) through a contact at the

church. Each week, Granny bundled up my aunt and uncle for a 40 minute toboggan trip to Children's hospital (it was the dead of winter in this prairie city and there was no gas for a car, even if they had one). At the hospital, my aunt received a total of 15 minutes physiotherapy in a very crowded session and then Granny would pull them home again.

The general practitioner would do home visits. He had placed a splint, which was like a downspout of an eaves trough cut in half, on my aunt's lower leg. It was heavy and immobilizing. My grandmother thought it was harmful. The GP removed the splint, which kept in position my aunt's "drop foot" (she could not flex it), then forced the foot into its 'normal' resting position. To attain a normal look the GP broke my aunt's foot. Granny had had enough of his therapy. She continued with her own brand of the Kenny Method. By the next summer my aunt scrambled around outside, and by Fall she was expected to keep up with her three older sisters. Her sisters were told not to give her any special treatment. She was to behave just like the other children. And so, my aunt was freed from the restraints that polio had put on her.

A Translation

My aunt's story, which is now part of my lexicon of tales, recounts some of the impact that Kenny's practices, her "concept" about treatment, had on one family and one small child. In it the reader can see how Kenny's methods open up some opportunities for my aunt and my grandmother that otherwise might not have been available to them. These opportunities fascinate me, especially since they are attributed to the work of a 'sister' or nurse. This paper is meant to explicate the opportunities, the freedoms, that Kenny's methods make possible. How are the introduction and practice of her methods

able to make such an impact in the lives of individuals and in the administration of healthcare?

In the process of explicating the practice of Kenny's methods, I engage in a type of historical analysis that differs from most in that its focus is not a life, nor an event, nor a time period. Its focus is instead related to the ways in which knowledge is *produced* in healthcare and the impact that such knowledge production has on the body. My analysis is thus a form of Foucauldian genealogy, and it is influenced by the historian Hayden White, as well as sociologists Bruno Latour, Steven Woolgar, and Michel Callon.

Hayden White (1973) suggests that the writing of history is like a process of mediation in which the historian sifts through many stories, finding in them a particular angle of interest around which historical figures are constructed. The figures become the history's subjects. In this paper, Sister Elizabeth Kenny, the individual who developed and promoted the Kenny Method, is an important subject. However, she is not the primary subject of my analysis. The most important 'subject' in this analysis is the body of the polio survivor; it is the central hub around which this history is built. Knowledge about the polio survivor's body is conceived of differently by Kenny than it is by medical scientists and medical practitioners of the time. With the effects she has on the body of the polio survivor and on the practices of medicine, Kenny is said to have disrupted processes of knowledge production in medicine. I examine this disruption not by telling a continuous story with a beginning, middle and end, but by telling a number of stories that relate to ways in which Kenny and the body in polio are conceived of and treated. The first story is structured using a temporal framework; the second is a story about the way in which medicine discovers and treats the body affected by polio; the third story

explores how Kenny's methods offer forms of freedom to polio survivors, their care givers and their families; and the forth story examines the construction of truth within networks of individuals related to Kenny and her work via forms of exchange.

Having taken a rather discontinuous approach to telling this history, I realize it might be hard for the reader to make sense of it as a narrative. So, in the remainder of this introduction, I offer up background information about Kenny, her methods, and the impact I see them having on the production of knowledge. I'll start with one introductory story about Kenny.

Thumbnail Sketch

Elizabeth Kenny was an Australian nurse (trained originally as a "bush nurse", then more formally in World War I) who, beginning in 1911, introduced a controversial polio rehabilitation treatment to the medical field, first in Australia and then in the United States. Kenny believed that most of the paralysis seen in medicine was not paralysis at all; it was instead the result of hyperactivity in affected muscles, known as "spasm". She insisted that the medical practices in vogue for treating polio paralysis--immobilization early on in the disease, lasting weeks and sometimes months, withholding rehabilitative exercises, and frequent re-constructive surgeries--were harmful and caused more deformity and disability than they prevented. Kenny's methods included the use of hot packs and positioning to treat spasm in affected areas of the body early on in the disease. Once the hot packs and positioning were effective to release some of the spasm, she instituted exercises with the polio survivor, helping the survivor to re-gain the use of previously immobile parts. Kenny conveyed the effectiveness of her ideas via her actions directly on the bodies of polio survivors; she was not a scientist proper who documented

her theories and the results of her actions for the perusal of medical scientists. She did, however, make many allies in the medical world who were able to translate her effects on the body and she was a great friend of the popular press, who covered just about any story about polio rehabilitation techniques she prompted them to explore.

Kenny was always on the defense because she felt constantly attacked by those in medicine who were known as "the orthodoxy", those who refused to admit the harmful effects of immobilization and, later, those who accepted only certain elements of her work as beneficial. Despite all of this resistance from the orthodoxy, Kenny and her supporters managed to convince, in short order, thousands of medical practitioners to abandon immobilization and initiate the use of hot packs and early exercises. Millions of everyday Australians, North Americans and Europeans were also very convinced that her methods were the best. Within one year after Kenny's methods were introduced in Australia and the United States respectively, Kenny and her associates were able to garner public and private funds to establish institutes offering her work. She became a key figure in the fight against polio and remained so until the mid 1940's in Australia and the late 1940's in the United States.

What makes Kenny's story such an important one? Most historians look at her defiance towards medical patriarchy as a key area of interest. Kenny is portrayed frequently as a politically savvy woman who showed indomitable spirit in her quest to be accepted by the medical mainstream. There are also explorations of Kenny's creativity and ingenuity as a nurse. In this paper I touch on those areas, but place a different emphasis on Kenny and the impact of her work. Instead of focusing on a biography of her as a woman or nurse, using a temporal context, I focus on the practice of her methods,

their impact on the body of individuals with the disease and their impact on the ways in which the body is conceived of in the mainstream of medicine. With its introduction and acceptance, Kenny's methods provide space for those in the medical and healthcare fields, as well as those in the general population, to question firmly established notions about the body affected by polio and the practices rationalized by those notions. This same process of questioning opens up a significant field of risk for those involved in polio care and for survivors themselves because Kenny's methods contain, as part of their rationale, some epistemological territory that is uncharted. Her knowledge about the body in polio differs from that in medicine. This difference is a key aspect of my analysis because knowledge about the body is directly linked to the ways care providers make decisions in order to do the "right" thing. Hence, my analysis has ethical dimensions that explore issues related to the "truth" about the body. The significance of such an analysis will be taken up in detail in chapter 2.

In my examination of truth-making, I engage in a discussion that accepts there are multiple knowledges about the body. One in particular, medical knowledge, has more authority in its statements of truth than Kenny's knowledge of the body, primarily because of the ways in which the truth about the body is produced. Medicine has established particular laws about the body that lend structure to our ideas constituting disease and illness. These laws are verified to have truth value based on processes of scientific reasoning. The scientific reasoning thus helps us to make sense of the complex phenomena the body presents to us. The laws also require our submission to the procedures and processes that give rise to them. In this sense, we are encouraged to have faith in the ways in which the laws and hence the truth about the body are constituted.

Foucault, following Wittgenstein, calls the adherence to particular rules about the production of truth, "truth games" or "games of truth" (Dean, 1994, p. 34; Foucault, 1985). Science, as a discipline, operates as a result of playing truth games; its raison d'etre is to discover the truth about the world, the universe and its inhabitants. It is the scientific truth about the body that Kenny challenges with her practices.

Kenny does something very unusual with the introduction and continued practice of her methods. She wants to be accepted by those in medicine, so she submits her work for medical scrutiny, but she refuses to play by the rules established for the production of truth and knowledge in the medical field. Indeed, she is down right radical in her approach on many levels. She has a radical attitude toward communicating with the public about her practices and her interactions with colleagues, friends and foes. A scientist does not usually go running to the local newspaper when her theories about a phenomenon are questioned by her colleagues, she gathers more evidence for her argument. Kenny, on the other hand, shows no restraint in putting out calls to the media. She also engages in a public display of her work that is more in keeping with religious zealots and snake oil salesmen than the traditions of an increasingly powerful medical science. Instead of producing graphs and charts and numbers to convey the truth about her practices, Kenny produces for public consumption bodies themselves; she holds public demonstrations of her work that have miraculous results and she hence converts thousands, inside and outside of medical science, to her ways of thinking.

Since medical notions of truth about the body are compared with Kenny's notions of truth about the body, the body in polio becomes a key figure in my analysis. It is clear to me that there are many approaches to the body that can be considered in the delivery of

healthcare, despite the valorization of a medicalized form of knowledge. In this analysis, I do not wish to take just one approach to seeing the body, because this is not what I see in the data I use to create my historical narrative. Instead, I take an approach to the body that opens it up to be interpreted in innumerable ways as an object of knowledge, each way having a particular brand of truth depending on the games of truth used in its production. Hence, I choose to call the body of the polio survivor the *poliobody.*

Using a term like the poliobody might sound cold and distant in that I appear to be de-facing individuals who are polio survivors, not giving them a name or a particular context of individual experience. I do not wish to offend the reader, but I do hope to gain a type of distance from the survivor of polio, so that she is not my aunt, not my acquaintance, not my client. Instead, this poliobody is a social construction made as a result of associations between humans (nurses, physiotherapists, doctors, parents, caregivers, children, politicians and members of the media) and non-humans like the poliovirus, or the hot packs brought into existence by Kenny; actors who surround the body that has been paralyzed in its torso and/or limbs by the disease polio or infantile paralysis. The poliobody thus is an entity that offers context for the stories I write, separate from the context offered to histories through the use of time frames, location, or events in the lives of individuals or in societies. The poliobody gains its dimensions and qualities from the associations that individuals and groups form around it. Thus, it takes shape as a figure based on the actions others have on, in, or with it. These actions are justified by the work people do, by discipline, by symptoms, or by a need to defend against fear and disability. Or, in the case of the poliovirus, its actions in the poliobody

are justified simply because it desires to live. The poliobody is thus a contingent entity to use as a context for history, which is exactly what I want to do.

In positioning the poliobody as a central figure in my analysis, I am able to examine further the rationale used in treatment for polio paralysis. The poliobody in medicine is portrayed as an object of the natural world that is the result of an attack by the poliovirus, which will stop at little to propagate. It is the virus that causes polio and it is the virus's attack on the Central Nervous System (CNS) that the medical practitioner, and those associated with medicine, like physiotherapists and nurses, learn they cannot stop. However, those associated with medicine can stop the after effects of the virus's attack. Namely, they can work to eliminate the deformity that nerve damage causes. There are certain limitations to the medicalized poliobody that Kenny seeks to expose via her practices. She is, in a sense, executing a breach of two important narratives seen in medical discourse--progress and war--which provide a context in which medical practices and theories related to those practices are interpreted. Below, I provide an introduction to "progress" and "war" as notions that give medical practices meaning in time. Beyond the introduction, I offer an outline of how Kenny's breach of these narratives becomes the central point in my analysis.

The Breach

By the mid-nineteenth century, the use of positivist science ushered in a new era in medicine.

> Patients and physicians in the early twentieth-century United States [and I add Australia, Canada and Western Europe] were hopeful that the new scientific medicine would enable physicians to diagnose, treat, and prevent disease with new precision. Science and the Progressive era was seen as an objective, potent, and transforming tool, best employed by experts. (Rogers, 1992, p. 72-73)

"Modern" medical scientists are portrayed in stories about polio to be fighting a war against not only the symptoms of the disease as a phenomenon, but the very cause of the disease and "enemy" of the body, the poliovirus. In this war against polio and its cause, each discovery or medication or practice is accounted for as a step forward, as step *toward* the goal of the disease's eradication. The progress and war depicted in polio stories are the product of narratives about the disease.

Narratives offer context for ideas to be made into stories and in doing so lend cohesion to ideas that otherwise might be very hard to make sense of. Since they help us make sense of our worlds, indeed, give cohesion to an otherwise rather random set of actions and events, narratives are very beneficial and they are present everywhere because they are a part of our thinking (Miller, 1990 p. 66-79; White, 1973). However, there is a paradox involved in narratives, especially in healthcare. While stories are used to make meaning and pursue truths about events in life, they can, in their very construction, limit access to particular forms of meaning because they require boundaries to take shape. The boundaries existent in stories hence have the potential to prevent access to truths.

Stories have boundaries around where to begin and end, boundaries constituting one character and the next, one object of interest and the next. These boundaries, according to White (1973), are *narrative closures.* Narrative closures are not bad. They are necessary, but they should be seen as things that are negotiable by recipients of the stories. The problem I seek to tackle in this thesis is that which emerges when, in certain fields of knowledge, like medical science, narratives produce closures that are very hard

to question, largely because they rely on foundationalism to make decisions around what constitutes the truth about the objects and subjects of knowledge.

In medicine, there are foundational ideas about the body, its structures and functions in health and illness, established as true, that serve as a ground for deductive reasoning in further discoveries about the body. In the case of polio paralysis, there are foundational ideas about its cause that have been developed through association between the clinic and the laboratory.

Starting in the late 19th century, it was determined that the disease we now call polio--after laboratory exploration of the nervous system offered up data about cell damage caused by an invader, eventually known as the poliovirus--had its origin in the CNS. Thereafter, decisions about the disease's effects and its treatment had to be based on the notion of a CNS disease to be considered as legitimate. There were, in other words, narrative closures around how to conceive of the body in polio that shut out other conceptions of it in medicine.

The narrative closures seen in the case of the poliobody are in keeping with others in medicine that relate directly to two broad narratives in the field. The first is that of progress; medicine as a science strives for progress toward the truth, progress toward an examination of the human body so that there will be an explanation for every process and reaction, every element of the human body which will be registered using numbers, written text, and graphs. The human body, as an object of the natural world, can and will be thus known through and through. The narrative of progress offers a context for all of the work that medical scientists do; their tweaking in the laboratory is going somewhere, part of a larger field of knowledge meant to find the truth about the body. As the human

body becomes more "known", it is offered an evermore complex taxonomy. And discoveries related to it offer up for those in the know--the experts in healthcare--particular categories to think with(in) that allow for confidence when making decisions related to the expected moves a body might make in the contexts of health and illness. A body is then, in a process of any given disease, expected to go in X number of possible directions.

In the case of polio, the poliobody is expected to be paralyzed due to attacks on its CNS by the poliovirus and hence it is expected to have a capacity for movement that can be anticipated by the healthcare worker. Any challenges to this capacity fall outside the expected course of the disease. I will talk more about capacity, but I wish to introduce the notion here because Kenny does re-constitute the possibilities for the poliobody with her moves, and thus she challenges the narratives of progress in medicine related to polio care. The CNS notions of the disease are considered progressive in the medical world and offer up a limited capacity for the poliobody. Whereas, Kenny, thinking outside of the confines presented by CNS notions of the disease, challenges the limitation of capacity offered to the poliobody by medicine. However, this is not to say that Kenny's notions of the poliobody free it completely from limitation, for her conception of its capacity produces its own constraints in discourse, as I will discuss.

Kenny also disrupts the narratives of war in medical polio care. Polio as a "disease" in the medical sense, emerges in the late eighteen hundreds, the poliovirus is discovered in the laboratory by 1908, and through the following decades the virus itself is refined into being the "enemy". First of all, it is reported to be making attacks on the body like a wild terrorist; no one knows where it lives, what it lives on, and when it will

strike next. As its moves are followed and it is taken into the laboratory to be made more tame, details of its existence become available, it is *made* into something that can be anticipated, controlled. The poliovirus thus becomes a scapegoat that can be beaten. This notion of "beating illness", of "fighting it", is directly linked to the narratives of progress. In the fight against disease, technological advances born from research become necessary, an absolute must. New behaviors and practices in the clinic are rationalized as superior based on the fact that they are technologically advanced. In the context of war, rules related to ethical comportment might shift radically, for the rules of engagement might look very different than the rules that usually guide practices. In the war against the poliovirus, the poliobody is subjected to confinement and pain that might otherwise be thought of as cruel and harmful. Kenny makes note of the punishment inherent in orthodox medical practices and she thus challenges the narrative of war in medicine.

In my analysis, Kenny's challenge to the closures presented in medical narratives of progress and war are linked to the concept of "discipline". Disciplines in healthcare are directly associated with the ways in which the body is conceived. Each healthcare discipline claims an area of expertise related to the body, and fields of practice are necessarily linked with the production of knowledge related to the body. As I have noted above, there are many truth games operating in medical science and there are truth games operating outside of it, too. I suggest in this paper that the medicalized poliobody is "disciplined" in a Foucauldian sense as a result of the truth games in medical science. In contrast, Kenny's poliobody is not disciplined in the same way because she does not adhere to the rules constituting the medicalized poliobody. In medicine, the poliobody is

something that can be freed by acts of war and progress, whereas in Kenny's realm of practice, the poliobody is something that can be freed by acts of faith in its capacity.

Foucault (1975/1995) suggests, beginning in the eighteenth century, there is a shift in the way bodies are conceptualized and governed in healthcare, a shift related to changes in the way that the individual in Western society, with its rights for "freedom" and "democracy", is governed. Within this broader cultural context, medicine emerges as a science of disease. Technological developments to consistently treat and cure disease or sustain health via direct interventions offer up opportunities for the human body to be constituted, not only by its corporeal dimensions with their structure and function, but also by its potential for capacity and productivity (Lash, 1991). Hence, in many instances, governance of the human body involves physical action in a doctor-patient relation that is directly influenced by technological advances in the fight against disease, which are made far from the site of the body. This "modern" relation involves forms of governance that are not portrayed as oppressive because they are rationalized by the body's ability to be freed from disease, generating capacity for productivity as a result of medical technology. For example, most parents follow public health directives to immunize their children because they learn how the immunizations boost the immune system. They have no direct access to evidence of this fact, but instead rely on the experts in healthcare to attest to its truth. They follow the doctors' orders.

The poliobody in medicine is highly codified and supervised; its efficiency and economy of movement are analysed and graded; its activity is understood within categories of space and time that have a link with the laboratory, not necessarily with its presentation as a corporeal being. A medicalized poliobody is subjected to

immobilization and is refused exercises because its capacities have been predetermined. With this predetermination, only particular sets of behavior from it are thought to be possible. It is thus governed based on limits to its capacity. Hence, the disciplined poliobody is *docile* (it does not step beyond the capacities that constitute it). It is also conceived of as having a great potential to be *useful*, to be productive once again because of medical treatments. So, its immobilization is not seen as a form of repression, it is instead, paradoxically, seen as a means to attain freedom.

As a result of her refusal to play by the rules of scientific games of truth, and in her challenges to narrative closures, Kenny opens up a place from which to practice that is not constrained by laws about the body normally developed in disciplines like medicine. She is, I suggest, operating in a site that is in-between established disciplines and she attempts to cultivate this site through the development of a taxonomy for the poliobody that appropriates elements of medicine, nursing and physiotherapy. With the poliobody as a body of her own making, Kenny attempts to establish a new discipline in healthcare, which she officially calls by 1946*, dermo-neuro muscular therapy.* I find this attempt at the making of a discipline interesting. Is it like a Foucauldian discipline that produces docile and useful bodies, or is it one that offers up a sense of inner capacity in polio survivors and their caregivers that is freed from the rules constituting the capacity's existence?

There are certainly links between Kenny's attempt at making a new discipline and the making of nursing as a modern discipline, independent from medicine. Modern nurses are said to subscribe to a body that is not confined to medicalized notions of illness and disability; they are to focus on health and capacity. This focus is supposed to make

nursing distinct from the field of medicine (Bevis and Watson, 1989; Marks-Maran & Rose, 1997; Parse, 1981, p. 12-13; Watson, 1997). Do nurses have in everyday practice a notion of the body that belongs to nursing, with its grounding in health and capacity? I suggest that the nurse, at the level of direct practice, has contingent notions of the body that are similar to Kenny's poliobody because the notions are influenced by medicine *and* experiences with the corporeal body that do not take well to being categorized, measured and anticipated in scientific ways. In using Foucauldian discourse analysis to explore Kenny's attempts to develop a discipline related to her practices and concept of the poliobody, I take a different approach to a question asked by other nurse theorists, such as Martha E. Rogers and Rosemary Rizzo Parse: Can nursing as a discipline, and the recipients of nursing care be freed from the constraints of medicalization through attention to more flexible and contingent notions of the body?

Having laid out the background information above, I will launch into an explanation of the methods I use for this historical analysis.

Attitudes, Philosophical Precepts, and Methods

Just as there are many theoretical perspectives in nursing related to the concept of health, its relation to the corporeal body, society and notions of the self, there are many perspectives on the meaning of history and its analysis. One form of historical analysis puts front and center epistemological issues related to the body: Foucault's form of genealogy. In this chapter, I outline the methods I use for my Foucaldian analysis, methods I locate with/in the postmodern. By taking up a position with/in the postmodern, I do not mean that I am completely abandoning research methods emerging over the past three hundred and fifty years, during a period in Western history that is known as the Enlightenment, the pivotal project of modernity. Postmodernity, as an object of knowledge, does not refer to something that exists as a progressive move in society replacing modernity. Rather, it is a term used to classify a broad spectrum of artists, writers of fact and fiction, and inquirers in the human sciences who question some of the narratives and philosophical positions that ground projects of modernity (Kendall & Wickham, 1999; Lather, 1991; Mills, 1997; Powers, 1996; Weedon, 1987), such as the notions of progress I locate within the "science" of medicine.

Postmodern inquirers question the rules that guide research methods because those rules, although they are claimed to be the source of systematic and non-biased approaches to inquiry that open the inquirer up to the truth, are in themselves organizing thought and influencing the production of knowledge so that they limit the ways in which truth might be understood. The postmodern writers who influence my methods, Michel Foucault, Hayden White, Keith Jenkins, Michel Callon, and Bruno Latour illuminate the authority of research methods and the narratives that inform them.[i] Although I call my

analysis Foucaldian, I appropriate methodological elements of all the inquirers above (who also may be labeled Foucauldian) to take account of the impact that Kenny and her techniques have on healthcare practices, hence on the production of knowledge within the field of polio care.

In this chapter, I offer an explanation of the philosophical precepts that inform my inquiry and shape its methods. Given that my approach to inquiry is postmodern, I am required to deconstruct traditional historical research methods, and will do so by focusing on notions of "the past", "the self", "society" and "freedom". In the process of understanding the meaning and treatment of these same notions in different contexts, I developed the methods used in my inquiry. The process is written up here as though it has distinct parts, although in working through the development of my methods, the boundaries between the parts was not distinct. The first process of understanding required some grounding in historiography, the *doing* of history; the second required my description of the poliobody as a primary figure in my analysis; and the third required the delimitation of scope in my analysis, which I refer to in the paper as the creation (rather than discovery) of a discursive field. The distinction, here, between the writing of a history and the delimitation of a discursive field around the poliobody is important because the historical analysis I engage in requires of me to take account of the conditions in discourse that give rise to the poliobody as a context from which my historical story emerges. The poliobody as a discursive context is distinct from other historical contexts, such as an era, a society, or a lifetime.

Once these three elements were set out clearly in my mind, the context in which I could translate meaning for historical documents was set forth. This chapter is structured

to reflect the process of understanding elements of my deconstructed history, starting with a discussion of the concept, "history", followed by a description of the poliobody as a main figure in the history and a delimitation of my discursive field, ending with a discussion of the freedoms emerging as a result of the activities within it.

On Doing History

Elizabeth Kenny is discussed in the literature about polio as someone who "makes history" because of the impact her practices have on the administration of rehabilitation in medicine. It is the way she thinks about the poliobody and the way she convinces others to think about and subsequently act upon the poliobody that gives her work historical value. Consider the following comments made by Wayne McFarland, M.D., on July 16, 1942, during an introductory speech about the impact of Kenny's work on the growth of Physical Medicine, which emerged as an important sub-discipline in medicine during the poliomyelitis epidemics in the USA circa 1916:

> When an individual points out unrecognized symptoms in a disease as old as the one, infantile paralysis, that is revealing!
>
> When these are at variance with the commonly accepted textbook pictures of the disease, that is startling!
>
> When the same individual also abandons the ordinary treatment of the disease and institutes measures contrary to years of orthodoxy, that is revolutionary!
>
> But when one practically singlehanded demonstrates and proves oneself correct, and then is accepted by one of the most critical of professions-medicine, that is medical history!

The comment above reflects the kind of shock waves in medicine that Kenny and her practices had. She's revealing, startling, revolutionary and she makes medical history, "practically singlehanded." I found it hard not to get caught up in the stories making Kenny out to be a heroine, fighting against the odds, not only to discover the "truth"

about the poliobody, but to convince those in medicine of this "truth". She is known as a nurse after all, and stories that convey this form of triumph are rare in the nursing field.

My idyllic vision of Kenny was quickly shattered when I began to read about her in different sources. Some, claiming a position in the medical field, noted her to be an irritating narcissist who wanted only to gain notoriety for a set of practices that were merely a modification of existing rehabilitation techniques. And Kenny herself made contradictory statements. One issue in particular bothered me: her claims to being a nurse. In her first autobiography Kenny reports, "I spent the following three years preparing myself, won my certificate, and was ready for the field" (Kenny/Ostenso, p. 19). If she did graduate in some formal sense before 1914, this fact was not recorded anywhere; it was not written up (Wilson, 1995). In exploring this contradiction and others, I realized that I had to make some choices about how to treat the many stories I read about Kenny. Should I take her side? Should I gather more information so that I could prove one position to be more truthful than the others? How should I present those who resisted her? Should I position her as a feminist, an inventor, a revolutionary, a nurse theorist, all of which would require me to interpret elements of the stories as though they *belong* to particular ideological categories? How do I know what is important to my inquiry and what falls outside of it?

I could not find answers to these questions in the work of Foucault, not that they were not there, but that I did not have a reference point from within historiography to interpret his statements about methods.[ii] So I looked to other sources regarding historiography. What I found was that postmodernism has been an important influence in the field of historiography since the 1970's and that there was and still is conflict amongst

historians as to the way notions of the past, the self, and society should be treated (Wilson, 1999). Since I was interested in maintaining a stance related to the body that is Foucauldian in its attitude, I gravitated toward postmodern historians. I found 2 authors in particular to be very helpful in explaining historical methods within the postmodern, Keith Jenkins (1995), and Hayden White (1973). Jenkins and White, while maintaining a Foucauldian attitude, draw attention to the importance of narrative in historical analysis. This really made sense to me because I could see that stories related to Kenny appeared to fall in camps, some in direct relation to medicine's progress, others in relation to Kenny as an individual with qualities that allowed her to resist social roles which constrained her.

White's form of historical analysis, called *Metahistory*, encourages the historian to be conscious of the ways the historical story--the history--is constructed, understanding that history and its constituents (the past, subjects, objects and society) can be made sense of only within narratives. For example, one narrative repeated in Kenny histories depicts her as creative individual who draws on her own ingenuity to offer up to medicine a treatment for polio paralysis, which is registered as small contribution to the medical field (Paul, 1971; Segel, 2001). Whereas, another narrative portrays her as a revolutionary woman, with wisdom far beyond that found in medicine, fighting against the narrow-mindedness of medical men (Cohn, 1975; Gould, 1995).

White (1973) suggests that representation and rendering of the past does not constitute history. Those who tell and document stories; those who document facts in tables, graphs and charts as inscriptions; and those who produce pictures represent or render the past in some ways, but they do not *produce* histories. Histories require an act

of narration, a process of telling that makes sense of the relationship that these stories, other written inscriptions, and pictures have with one another. Thus, narratives offer a context in which representations and renderings can be seen as constituting the "past". Historians, White (1973) adds, strive to develop narratives that are relevant not only to themselves as inquirers but also to their audience, the readers of the history, an approach that is attributed moreso to those writing fiction than to the human scientist.

His position is in opposition to other theorists of historiography, such as those generated by Edward Hallet Carr and Geoffrey Rudolph Elton (Jenkins, 1995). These other theorists see the past as an entity that can be viewed like an object of the natural world. White's views are in opposition to those who note that the writer of history should not conjure up his own story for what has happened, that he should instead *find* the story which has inherent structure within the historical data. White also resists perspectives that suggest the historian, through years of learning to discern what is important and what is not important in the data, can be a conduit for knowledge about the past, its people and its events. This form of becoming an expert interpreter of the past is seen by White (1973) as a "disciplining" of the past, which began in the eighteenth century (p. 138).

In making a discipline of writing history, rules emerge around how to represent objects and subjects as figures in the historical field. These rules do not apply to the use of language so much as the attitude taken to subjects and objects, which are seen to have an intrinsic truth waiting to be found. White (1973) suggests that claims to truth about the past in traditional forms of historical analysis are only attained through narrative closures that perform theoretical punctuation, distinguishing one event from the other, one subject or object from another, not just for the moment but for the permanent record. For

example, in some histories about polio there are narrative closures around what constitutes Kenny's contribution to history; that she offers to medicine, novel practices that help diminish paralysis and nothing more. Following White, Jenkins (1995) offers a way to examine the narrative closures related to the past, society, and the subject in traditional forms of historical analysis by setting them within 2 broad categories: History (in the upper case) and history (in the lower case).

History (in the upper case)

History (in the upper case) offers up meaning to the past and its inhabitants as though they have "objective significance" in their relation to an overall plan or theoretical framework that is developmental in nature (Jenkins, 1995, p. 8). Upper case historians treat the past as an object of knowledge that is accessible via empirical data, following the premise that the past is governed by laws and regularities that can be discovered, just as society and its subjects are governed by laws and regularities. Histories (in the upper case) thus reinforce the argument that societies are progressing toward something, some goal, for example freedom for citizens via a capitalist market economy, or conversely freedom for citizens from the constraints of a capitalist market economy (Wilson, 1999).

History (in the lower case)

[h]istory (in the lower case), developed by affluent, middle class people in academic circles, emerges in the nineteenth and twentieth century. It is said to be "plain, common-sense, humble 'history'', and does not refer to grand stories of nations or events (Jenkins, 1995, p. 8). Lower case historians study the past for its own sake; they treat the past as something that is separate from any particular schema for its existence. In this way it is not teleological, meaning that the goal of history can not and need not be known

because to impose an agenda on the past would be to champion an agenda for the future (Wilson, 1999).

(H)istory and (h)istory as modernist endeavors are failures, according to Jenkins (1995), in that they do not deliver their promised objective access to the past and its inhabitants and they do not give information that facilitates reaching the goals their philosophical precepts envision (see Appendix A). Jenkins (1995) notes in response to the lack of attention paid to the shortcomings of history in its upper and lower cases, White develops Metahistory.

Metahistory is controversial (even now) because of White's problematization of the Cartesian foundationalism[iii] in traditional historiography (Jenkins, 1995; Wilson, 1999). White argues for a self-conscious approach to *doing* history because he sees the effect that narrative structures have on the production of knowledge about the past. He points out, just as Foucault does, that discontinuous fragments, facts and stories are offered cohesion through the use of narrative techniques employed by the historian, so it is a waste of time to argue that there is an "authentic" view of any historical entity. Instead, all accounts of the past are, as narratives, valuable not for the purpose of determining one truth, but rather to bring to light that there are multiple truths constituting history.

White (1973) examines the narrative structures of 19th century historical texts to create a taxonomy of sorts, noting the *many* narrative techniques used in innumerable combinations by historians (see Appendix B). He discusses ways plot lines are constructed, and suggests there are 4 modes of argument used to rationalize the position of the historian. He adds that the historian takes on a particular attitude toward the

material she studies through the use of "Tropes" (tropes) to construct the history (pp. 31-38). White notes the historian does not enter into the use of tropes consciously, but rather realizes the attitude she takes during the process of writing. The development of this attitude requires of the historian to take a figurative approach to history and its subjects and objects.

I follow White in taking a figurative approach to history because I treat history as a literary entity, not an entity that can be viewed with the type of objectivity that belongs to the disciplines of science. Accordingly, I do not pursue the construction of one true story about Kenny and other inhabitants she encounters as figures of the past. Instead, I investigate how Kenny and other inhabitants of the past, like the polio patient, are constituted in narratives.

White (1973) examines textual accounts of the past using an analysis of modes of expression like plot lines, modes of argument and tropes, whereas I examine particular statements, which I will explain later in this chapter. I treat the past as though it is an entity that cannot be conceived of as real in any sense, disregarding the epistemological grounds for the disciplines of history in its upper and lower cases. Both (H)istory and (h)istory rely on the narrative closures developed around notions of the past, society and the subject for their existence as disciplines, for what sort of rules and judgements could they apply to objects and subjects of "history" without these closures? Whereas, narrative closures are treated by White and myself as sites that require problematization so that other possibilities for conceptualization might emerge in their place (Jenkins, 1995; White, 1973, p.6; Wilson, 1999). The job of the historian is, according to White, to work

outside of the confines presented by disciplines of history, which establish rules around how to represent the past.

One key element of this representation I have not mentioned thus far is the way in which the notion of time is taken account of in histories of the upper and lower cases. I wait until now in the discussion to bring the notion of time up because an understanding of it in 2 of its many formulations will help to introduce a key concept in my analysis: a reading of history as something that is *sublime*.

Time figures into a discussion of history always, for history itself exists due to distinctions between "then" and "now", between "past" and "present" which allow for us to engage in the processes of rendering and representation involved in the *doing* of history. For the purposes of this paper, I wish to concentrate on a few key remarks about time that relate to the distinction between what is known as the "modern" and the "post modern".

Most of us pretty much take for granted the notion of time as a quantifiable entity. Time marches along in a linear fashion whether we want it to or not; it exists as something independent of societies, cultures, states. Its "universal" constituents, such as the second, minute, hour, month, year, decade, etc. are signposts that are represented in a unified manner throughout the world. Time, in this sense is something that is a product of the projects for unification in ideas emerging out of the period we frequently note to be "modernity", a period that gains its constituents by being seen in relation to "antiquity". During the years of the Enlightenment and beyond, when progress is made by refining instrumentation, time takes on the qualities we now ascribe to it (Hawking, 1988). Judith Parker (1997) calls the modernist approach to time the "outer distinction" of time, a

"socially constructed temporality" (p. 14). Parker (1997) adds that there is also an "inner time" (p.14) (taken account of by French philosopher Henri Bergson in his book "Duration and Simultaneity", translated into English in 1965).

Bergson used the term duration (durée) to describe immediately perceived inner time, which is "'the very fluidity of our inner life'", an "'uninterrupted transition, multiplicity without divisibility and succession without separation'" (Bergson in Parker 1997, p.14). Time, in this sense, is not broken down into discrete units. We have likely all experienced this sense of time (Northrup, in press). When a dentist drills, how does time passing feel? Imagine lying in a bed, a child paralyzed as my aunt was. What dimensions of temporality *matter* to humans in these situations and what reflects "time spent"? Parker notes "(o)uter time gives form to the content of inner time," however there is a "collapse" of the boundaries between inner and outer time in the postmodern so that they "interpenetrate each other" (p. 14). She adds that a postmodern approach to time takes account of the "presentness of time" rather than as "time ordered by sequence" (p. 14). There is a possibility with this approach to time, as seen in so many movies recently, to see "everything happening at once" (Parker, p. 14).

I bring to the reader this discussion of time because I see it directly relating to Hayden White's take on the past as something "sublime" (Jenkins, p. 145). The term sublime might conjure up a sense that the past is peaceful and almost perfect, but this is not what White is getting at. He says instead that the past is sublime because it defies all attempts to represent it as a cohesive whole; it is too complex and its magnitude too great. White's sublime past is like Parker's postmodern notion of time. It is something with unstable and multiplicitous boundaries, not something that can be conceived of as an

object of the natural world. Time and history are thus linked as objects of knowledge in that they can only be studied in a figurative sense, through the use of metaphor and irony and other literary tools that offer up some representation of them. Hence the historian creates a narrative that is textual, and if true to the notion of the past being sublime, self conscious of its own narrative closures, so the ambiguities and contingencies of its history are exposed for reflection (Jenkins, 1995; White, 1973).

Polio(body) and its Place in Discourse

With Jenkins' approach to histories and White's formulation of metahistory, I was able to offer my Foucauldian ideas about history some methodological context. However, because I am a nurse and have met individuals who live with physical disabilities caused by polio, and because of Kenny's unique relation to the body, I continued to wonder about how to take account of the body on a corporeal level within this history I was creating. I thus could not ignore White's take on the sublime to answer some of my questions about how to treat the body in this paper. The body as context can not be fully apprehended, nor completely understood because of its complexity and ambiguities. As much as there is a narrative of progress in science that says someday all aspects of the body will be discovered, the "discoveries" can only be retained as truthful within the discursive formations in which they are declared (now that is a postmodern statement!). There always are within discourses about the body those bodies that do not comply with the rules regarding their capacities: those treated early for cancer do not recover; those deemed infertile have babies. Is the body sublime? I think it is and I think this is one of the key messages that Kenny's story conveys, although Kenny might not have agreed with me.

Like the past and time, which are written up as literary things, the body as an object of knowledge within fields of healthcare is, in one sense, textual. In reading about theories related to polio and polio rehabilitation, I am a witness to the body that is textualized. And in my everyday work I have to keep in mind this textualized body, the one documented in charts as a conglomerate of symptoms, a "trouble maker", a "schizophrenic". However, I am also very aware that the textualized body emerges from the contact I have with the corporeal body as something that is pre-textual. In the presence of the corporeal body, I am witness to a myriad of glances and facial expressions, shifting sounds and smells, an endless labyrinth of movements, and tangles of words that do not get written up. Constituents like these, in my estimation, can never be fully classified or explained because of their complexity and contingency; thus, they render the body sublime. The sublime body is hence one that resists classification and explanation; yet, it is also one that is constantly subject to *becoming* some(thing) or some(one) when it is in relation to another who is attempting to make sense of it. With its resistances, however, the sublime body is open to all possibilities; open to an endless number of re-formulations; and open to the occurrence of "miracles".

I have, since 1998, taken great interest in the books of Elizabeth Grosz in an attempt to explain my account of the body, with its possibilities and resistances. I am particularly fascinated by the way Grosz (1995) takes account of the body as "pliable flesh", as the "the unspecified raw material for social inscription that produces subjects as '*subjects of a particular kind*'" (p.32). The corporeal body, Grosz (1994), notes rather than being a site passively awaiting our inscription, is a site constituted by "speeds and intensities", shifting in ways that we cannot fully take account of (p. 169). The corporeal

body is in one sense, a "body without organs", or "BwO", a concept developed by Gilles Deleuze and Felix Guattari.

> ...the BwO invokes a conception of the body that is disinvested of fantasy, images, projections, representations, a body without a psychical or secret interior, without internal cohesion and latent significance. Deleuze and Guattari speak of it as a surface of speeds and intensities before it is stratified, unified, organized, and hierarchized. (Grosz, 1994, p. 169)

However, without the link to White's notion of the sublime, the BwO was just too theoretical to apply to my work; it was a statement of words that did not resonate with my life and work experiences. My nursing work experience offers to me bodies that are living flesh, more like the following as a demented mother, now a mother lost to my friend Fran Muir.

> I comb your hair, you won't let them wash or cut it, refuse baths, changes of clothes, holding your space close to you, skin. Silent in this intimacy thrust upon us; lost bodies. (Muir, 1997, p. 26)

The Body as Living Flesh

Not surprisingly, I found an account for the sublime body, its possibilities and resistances, in the writings of a nurse, Judith Parker (1997) the same Parker I draw on to discuss postmodern notions of time. Parker draws (as does Grosz 1994) on the work of phenomenologist Maurice Merleau-Ponty, who positions the body neither as text nor as a medicalized entity, to develop her notion of the *body as living flesh* (p. 12). The body as living flesh is not an object of knowledge held in a binary opposition with the body as text. "Rather, it is a metaphor for the space between discursive formations which render homogeneous the complexity and diversity of embodied experiences" (p.25-26).

When she positions the corporeal and textual bodies as metaphor, Parker questions the narrative closures placed on the body that are an effect of biomedical discourse. She points out that "the body of living flesh is a space of resistance, a space apart from rationalising [*sic*] and totalising [*sic*] processes, a space that permits the

emergence of new understandings" (p.26). The body as living flesh is figurative and literary in the same way that history may be literary with/in the postmodern. It is a key metaphor in my analysis in that it provides a way to conceive of the corporeal body (a sublime body) as something that is textual and yet not confined to the ready-made categories set up for it in representation from a scientific point of view, nor one arising from any discipline. As metaphor, the body does not have the epistemological links that it has as a "human" body, a "healthy" body, a "sick" body, and thus it is freed from the disciplinary rules that constitute it as an object of knowledge within the narratives of healthcare. The BwO also does not have these epistemological links, but the body as living flesh maintains the focus on a material body that I relate to as a nurse. The material body depicted in narratives about Kenny and her methods, is the body I call the *poliobody.*

The Poliobody Discursive Field

The poliobody in my analysis is a body as living flesh that I situate within the discourses of rehabilitation, which I conceive of as an act, a domain of practice, and a process. I situate the poliobody within the realm of rehabilitation in healthcare because there is involved in the notion of rehabilitation, processes of emancipation that highlight discursive associations not usually labeled as political, and yet they are very much so, which I find ironic (Dean, 1994). Rehabilitation can be understood to be a form of emancipation, allowing for a transcendence of the body, disabled in some way, so that it can re-integrate, re-establish former capacities and gain attributes of those in society who are seen to be productive and successful. The poliobody as a recipient of rehabilitation is something conceived of as having the potential to be reconstituted. It is in multiple positions simultaneously, i.e. it is a "disabled body", a "child", "patient", and a "historical site"--to name a few. Its boundaries are negotiable; they are sites that are codified, places

at which alliances, conciliation, and defeat occur. These processes of negotiation around its existence occur within the context of discourse.

Narratives and Discourse

I have talked thus far about the body as it is constituted in narratives of healthcare, but I have not yet discussed the relationship I see between narratives and discourse. The relationship between the two is examined here in my explication of discursive field, which I construct around the poliobody. Discourse in the postmodern, unlike traditional narrative structures, is said to be something that is extremely complex, antifoundational, prone to contradictions and paradox, and it is an unwilling entrant into particular ideological models. There are, as I have mentioned, particular techniques used by writers in the creation of narratives that are not available in accounts of discourse. Discourse is a literary entity insofar as it is textualized the way that time and history are, but it is also something that involves material exchanges and is thus like the body as living flesh, textualized yet ultimately sublime. An account of discourse, unlike narrative, does not involve representing or recreating a scene; it is more like an incomplete 'capturing' of a multitude of exchanges which in themselves involve the making of stories and representations as well as physical acts (Kendall and Wickham, 1999, pp. 34-46).

I am a witness to discourse only insofar as I gain access to written accounts of it in the form of narratives, which I deconstruct by explicating narrative closures for the purposes of constructing a new narrative in the form of a history. Narrative structures, thus, become the only way to make sense of discourse, but still I should discuss my ideas of discourse. In this paper, I use the term discourse in two ways, both of them Foucauldian.

First of all, the term discourse is used to define groups of statements that have particular unities, so that the discursive field is made up of discourses about the body and the practices related to it, like those of nursing or medicine. These unified statements have immense power through their "truth effects". Statements that are offered a position within discourses do not necessarily emerge from those who are working within disciplines like medicine or nursing, though (Kendall and Wickham, 1999). For example, a mother's statement about a poliobody can find its place within a discourse of medicine and an account of a physician's act on the body can find its place within a discourse of parenting.

Secondly, discourse refers to the ways in which the poliobody is depicted as a visible and material thing (a figure) within fields of practice, like medicine and nursing, around which actions are justified and around which the social organization constituting fields of practice is sustained. Discourse in this sense is linked to the actions of individuals and groups within realms of governance in healthcare practice and it is linked to the rules used to configure objects and subjects in the discursive field. I take account of the rules used to configure subjects and objects in the poliobody discursive field via an examination of narrative accounts, but because I engage in a Foucauldian discourse analysis, I examine narrative accounts of Kenny and her work in an untraditional way.

Traditional narrative structures in historical analysis have focal points that are already named and mapped out, such as geographical sites, social groups, ideologies, disciplines and individuals. I do not negate a discussion of these focal points, however I treat them in such a way that I do not take them for granted as being something that I am compelled to include or highlight. I do this because I am orienting my work within in

Foucauldian genealogy; hence, I am required to be ironic in the identification of my figures, begging questions about the constituents of things and individuals in the discourse(s). Foucault is noted by White (1973) to be an Ironist, someone who conveys in his writing a sense that statements should be questioned, no matter what the source. I thus make a departure from traditional historical focal points and configure a discursive field from an analysis of statements about the poliobody as a main figure, paying attention to the possibility that the relation between figures in the same field might not fall into ready-made categories, such as disciplines and liberal humanist formulations of the subject as "person".

The poliobody is the main figure within this field. However, there are many other figures that must also be treated as though they are literary, similarly to the way that the poliobody is treated. The other performative images in the field, such as the virus and technical artifacts, are examined as objects emerging from discourse based on their relation to the poliobody, rather than as objects of reality separate from discursive notions of the poliobody (Lyotard, 1984). Hence, they constantly refer to one another in their constitution; their relationship offers context for them as figures or objects in the discursive field. With this conceptualization of the discursive field (also the historical field) around the poliobody, I draw on Foucault's notion of the referential.

The Referential

Foucault in his *archeology*, a form of analysis that is seen as a precursor to his *genealogy*, refers to the body and other objects of knowledge in discursive fields as *referentials*. Foucault notes that a referential is "made up not of 'things', 'facts', realities',

or 'beings', but of laws of possibility, rules of existence for the objects that are named, designated, or described within it" (Foucault, 1969/1972, p. 91).

> The referential of the statement forms the place, the condition, the field of emergence, the authority to differentiate between individuals or objects, states of things and relations that are brought into play by the statement itself; it defines the possibilities of appearance and delimitation of that which gives meaning to the sentence, a value of truth to the proposition. (Foucault, 1969/1972, p. 91)

The notion of referential is important in my analysis because it helps me to maintain my stance on the poliobody as body as living flesh, adding to it an explication of power. If the poliobody is a referential, it is described in multiple ways from multiple positions, as the central hub in the discursive field. It is constituted in relation to those who conceptualize it and those (humans and non-humans) who act on or in it. The poliobody is thus a micropolitical and macropolitical site which attracts, in a constellation, strategic practices and tactical alliances between humans and non-humans that involve particular technologies.

Within the constellation, there are those who engage in governing the poliobody in the context of work that is devised in response to the poliobody as something both docile and useful. The polio survivor, the nurse, parent, physician, and physiotherapist, work with the poliobody; hospital administrators, public health officials, politicians, and non-governmental funding agencies respond to pressures created by the poliobody, sustaining or eroding environments of practice through administration of people and funds, maintaining a direct impact on the body; and the poliovirus itself is engaged in a relation with the poliobody. Because it is said to mobilize so many, the poliobody as a referential, is a performative figure that replaces the foundational subject seen in most traditional histories. In my process of understanding, once determining that the poliobody

was the referential in the discursive field, I attained a focus for my data analysis: statements made by inhabitants of the poliobody field which make reference to the poliobody in different ways.

Method

Data Collection

Between March 1999 and April 2000, I obtained data from two primary sites, beyond the histories of polio and Kenny I attained between 1998 and 2000 (all from books available at local libraries or from interlibrary loans from the U.S. and Australia). The first was at the Fryer Library at the University of Queensland in St. Lucia, Australia. I made contact by email with a reference librarian there, who selected letters, documents, and reports, for me based on the instructions I gave her. Basically, I asked for information that referred to Kenny's methods and the resistances to them. My requests included letters from parents, all correspondence about a key event called the "Royal Commission", reports made to the Australian government and medical authorities, archival journal articles, and references to Kenny's move to North America.

The second site was the Minnesota Historical Society Library. In April of 2000, I visited the Society's archives in Minneapolis, Minnesota (an exhilarating experience) and spent two days collecting data there. The data, loosely filed by topic alphabetically (although not alphabetically within the given subcategories) was contained in 7 document boxes, 2 of which (5 and 7) were missing at the time. From dozens of folders, I chose articles, news clippings, reports, letters, pictures, pamphlets and booklets that made reference to Kenny's method and resistances to it.

Beyond the archival searches, I did at one point consider asking for information from private collections, and I obtained permission from the Ethics Committee at University of Victoria to submit a request for data via email from polio-related web sites internationally, using as a main website that of the Post Polio Awareness and Support Society, located in Victoria. However, it was evident that I had a significant amount of data already, enough to embark on my analysis, so I did not follow through with the website requests.

Procedure

Near the date that I visited the Historical Society, I settled upon using the idea of the poliobody as a referential. Accordingly, when I reviewed the data from Minneapolis and Australia, along with the other data in the form of histories I received earlier, I began to identify statements (words, phrases, sentences, paragraphs, sometimes entire chapters, and pictures) that referred to the constituents of the poliobody as an object of knowledge; its function, its treatment, its social behavior, its safety, and its comfort. These included statements about acts on, in, or with the body by humans and non-humans.

I determined that the paralyzed poliobody exists in medical discourses via inscriptions constituted by microscopic views of nerve morphology, inscriptions of cerebrospinal fluid analysis and nerve conduction tests. Without these forms of examination, paralysis might be attributed to diseases other than polio, for example, forms of acute polyneuritis (inflammation of the nerves) that frequently did not and do not have a known etiology (we now call one such disease Guillain Barre syndrome). Thus, in most medical sources, propositions related to the poliobody as referential were

grounded in facts established after scientific inscriptions of the corporeal body made in the laboratory were *applied* to the body as living flesh.

In contrast to these post hoc inscriptions, Kenny's referential emerged from the surface of the body itself and the physical and speech acts generated by the poliobody that were not taken up in scientific analysis of medicine. I decided to examine the constituents of Kenny's referential and explore how the Kenny method as a domain of technology helped to form the poliobody as an object of knowledge that had a different realm of possibility than that granted by medicine. In discussing how a different realm of possibility opened for Kenny's poliobody, it was not enough for me to simply identify that there were groups of statements in the poliobody discursive field that showed particular unities in the way they depicted the poliobody. I had to show *how* the different statements had an effect in poliobody discourse. To attend to this need, I drew upon the work of sociologists Bruno Latour (1988, 1991), Michel Callon (1986, 1991), and Steven Woolgar with Latour (1979) in an explanation of exchange that occurs within networks of association in the poliobody discursive field.

Networks of Association in the Poliobody Discursive Field

The networks of association I depict around the poliobody are meant to take account of society in the past as it is conceived of in the postmodern[iv] because the micropolitical elements in poliobody discourse are part of those that occur on a larger scale, giving form to society itself. Postmodern society does not conceive of social structures based on categories that are ideological in their constitution and hence a postmodern society is not comprised of enduring social categories based on the power and validity of the ideas used to explain those categories. Instead, postmodern society is

said to be constantly sustaining or renegotiating the categories that constitute its structures, its knowledges, its social roles, its disciplines, through the interaction between individuals, as social actors, within discursive constellations. These individuals are usually thought of as human beings, however humans are not the only participants in these constellations. In the poliobody discursive field, I identify that technical artifacts like braces and hot packs, as well as the polio virus are also social actors. In networks of association, social actors are additionally known as *actants* (Latour, 1988).

The way that social categories constituting society's structures are negotiated and sustained is through the exchange or *circulation* of "social tokens" (Latour, 1986) or "intermediaries", which are:

> 1. literary inscriptions: any text documents, including the use of words, pictures and symbols
> 2. technical artifacts: human-made objects such as splints and I suggest the poliovirus as well as the body of the polio survivor
> 3. the skills and actions of human beings: rehabilitation practices and Kenny's practices
> 4. money. (Callon, 1991, p. 134)

To be an actant, the entity must be able to interpret and transform intermediaries via combination or mixture, degradation, or anticipation, to create the "next generation" of intermediaries (Callon, 1991, p. 141). For example, in the poliobody discursive field I examine how a statement about a technical skill made in a medical journal article gets into circulation via Kenny's reports about the same statement in a newspaper. Elements of this statement, a phrase or a concept about the poliobody, are then found in other locations, such as a report or letter about clinical practices. So, when there is an exchange of intermediaries, something *happens,* be it the acts of reading or speaking, or acts with the poliobody as a body as living flesh. The circulation of intermediaries is hence productive and involves power not as a thing that causes interpretation or transformation of intermediaries, but as an *effect* of the interpretation and transformation.

In the poliobody discursive field, then, the existence of categories like science, and entities like people and practices, are taken account of in narratives not because of sameness that can be registered in an objective realm, but because of difference, for the differences when registered beget the need to clarify limits between one object and the next. Hence, the existence of categories and entities depend on an *interplay of differences* (Foucault, 1969/1972). The truths, then, about categories and entities do not exist in a place that is transcendental, above or outside of social exchanges. Rather the truths exist, from a Foucauldian perspective, only via exchanges in discourse.

Truth Games

Foucault makes apparent the methods and rules that *produce* truths in discursive formations which he calls "regimes of truth" (Dean, 1994, p. 94) and later "games of truth" (Foucault, 1984/1987). The games of truth (also truth games) I explicate through my analysis of statements exchanged in the poliobody discursive field are those operating inside scientific medical discourse and outside of scientific medical discourse in a place that is not well defined, except to say that it is a place that Kenny practices from. I argue Kenny's practices displace the medical truth about paralysis in the poliobody because she defies the rules in the medical truth games that depend on Cartesian foundational ideas about the poliobody and propositions of truth made based on those foundations.

By 1911, when Kenny's practices enter the poliobody discursive field, the poliobody already occupies a position in medical science as an object of the natural world, a body that is foundational in a Cartesian sense. Within this view, a propositional belief about the poliobody is found to be true only if it accurately describes an objective reality, one that exists independent of human perception or interpretation. "Truth is only

about such objective realities...therefore, fundamentally independent of moral and political goals, beliefs, or values" (Williams, 1999, p. 12). In other words, once a proposition about the body is found to be true, then a hypothesis about another aspect of the body can be made based on that proposition, which in turn may be tested for its truth in relation to the prior proposition, not *necessarily* in relation to the corporeal body itself. The scientific method ensures this form of truth about the poliobody is represented in the language of analytical statements made from inscriptions of the body that stand independent from other statements like value statements, which necessarily take into account temporal, historical and cultural context.

In contrast, Kenny's truths about the poliobody are not attained independent of human perception or interpretation; they depend on her *direct contact* with the surface of the poliobody, her experiences with it, her sense of touch, her vision, and knowledge of the body that does not previously have a place in the truth games of scientific medical discourse.

Now, Kenny did not displace medicine's foundational knowledge of the poliobody by the introduction of her methods alone. I argue she offers to individuals (actants) in the poliobody discursive field something they can exchange: intermediaries (practices and textual representations). The exchange of intermediaries that Kenny's methods engender offers opportunities for the actants to question scientific narratives that convey only one truth about poliobody paralysis.

In my analysis, propositional statements about the body as a product of Nature become a problem because they present with narrative closures, closures that are challenged by Kenny through the introduction and subsequent acceptance of her method

(in its many forms) within mainstream medicine. The statements--the textual rendering of Kenny's actions and ideas--that Kenny makes related to the poliobody question the foundational ideas generated in medical science. She challenges notions of truth about the body predominant in medical science and in Western society and I explicate her challenges.

In Defense of My Explication

It might be argued that my strategy, my account of narrative closures and the "rupture" of them, is a novel literary hook, for truth games merely represent the political dynamics that impinge upon *any* study in the clinic, the lab, and the academy. Perhaps the case of Kenny's methods merely points to one mistake in a process usually correct in its representation, despite the politics. Certainly it is difficult to understand from a pragmatic point of view how the practices of medicine, nursing, and physiotherapy might fare without foundational ideas about the body.

I say the latter because members of the above disciplines rely heavily on Cartesian foundational ideas informing medicalized conceptions of the body to offer rationale for the practices they engage. And they do so because the form of truth generated by the scientific process is one that is valued above other forms of truth in Western Society. In the case of the poliobody, the "truth" about its medicalized anatomy and physiology is figured out in advance, far from the context of the clinical setting. Hence, within the realm of medical science proper, any new ideas about the poliobody's form and function are required to pass the test of scientific scrutiny before they emerge as valid and "true".

In contrast, Kenny, who inhabits discursive positions primarily thought of as unscientific, searches for means to verify her "truth" about the poliobody by keeping close proximity to the corporeal body. Accordingly, textualization of her work with the body renders a poliobody that is, figuratively, a body as living flesh.

In my analysis, I explore how Kenny garners legitimacy for her alternative knowledge of the poliobody by drawing attention to the fact that medical practitioners and scientists disregard or shut out their empirical experiences with the corporeal body, and the individual inhabiting it, in favor of data received from the laboratory. She consistently warns that formal medical processes of inquiry ignore polio *symptoms as they present themselves* and her warnings are heeded by healthcare professionals, parents, members of the media, congressmen, and polio survivors.

I suggest that Kenny's warnings and alternative views of the poliobody resonate with the general public because she is able to draw on narratives determining work with the poliobody to be something with moral dimensions that are essentially bracketed out from scientific discourse about it. Kenny's views of the poliobody garner attention and legitimacy from healthcare practitioners because the same practitioners operate at times using knowledges of the body that do not get taken up textually; they operate instead on an understanding of the body as living flesh, which is contingent and dependent on geographical or spatial, temporal, and cultural contexts. It is Kenny's attention to the body as living flesh in her theories of the poliobody that front-line practitioners cannot ignore because there is a "truth" to her statements that is borne out in the home and the clinic.

The effects of Kenny's methods, when taken account of in the media and in medical publications, generate alternative narratives of the poliobody which serve to displace the well-established medical narratives of the disease and its effects on the body. My analysis in this thesis is meant to explicate how Kenny challenges the narrative closures set forth in medical discourse about the poliobody. In doing so, I hope to evoke some reflection by the reader regarding how the human body in healthcare is constructed as a social and literary entity, which is flexible and is the product of discourse (and, therefore, power) within particular times and places.

In addition, I hope to bring to mind how alignment in reasoning about the human body in healthcare narratives (influenced by an agreement about the body's constituents based on narrative closures developed via Cartesian foundational ideas in medicine), affects the disciplinary rules set forth for those working directly with the body. Kenny disregards the rules set forth for the comportment of a "nurse" when she engages in the reformulation of polio as a diagnosis because the diagnostician role she takes up is usually reserved for the physician, who is said to possess a form of knowledge about the body she has limited access to. Despite her reported lack of ability to understand the medicalized poliobody, Kenny influences medical knowledge of it via the exchanges she participates in within discursive networks around the poliobody. Her ability to influence medical ideas in this manner highlights the ways in which knowledge is a product of discourse, inextricably linked with power, rather than an entity that exists in a transcendental place in isolation from geographical, social, political, and temporal contexts.

The acceptance of Kenny's practices in medicine precipitates an interrogation of medical knowledge about the poliobody and the narrative closures constituting it in healthcare discourse. Thus, I suggest, she operates in a field of practice that is less constrained by the limits of narrative closures set out on the poliobody by medicine. Hence, she is less constrained in the way she portrays herself as a provider of polio care. In this sense, Kenny exercises a form of "freedom" that is directly related to knowledge(s) of the body. And, I add, her different knowledge of the body is shared with polio survivors, so they also have an opportunity to exercise freedom in terms of how they see themselves.

Freedom, Truth, and its Links with Nursing Practice

In my analysis, I wonder if Kenny's freedom is related to her being a nurse. On the one hand, nurses take account of the corporeal body as a body as living flesh in their practices, shifting their ideas about it and its treatment constantly; however, on the other hand, the work of a "modern" nurse is guided very much by medicalized notions of the body. The modern nurse thus is working somewhere "in-between" the two, according to Parker (1997). She says nurses:

> ...are situated at the interface of therapeutic intervention and expressive connection; between doing for and being with. They work at the overlapping, interpenetrating margins between professional constraint and personal intimacy. They trouble the borders of bodily eruption/disruption and bodily hygiene and order. They are located precariously between the world of the doctor and the patient. As a consequence of these equivocal locations, nurses work on a daily basis in a context of uncertainty, paradox, and incommensurability. (p. 27)[v]

For the purposes of my argument, nurses work in-between the body as living flesh and the influences and constraints in their workplaces that require them to take account of the body as it is disciplinized, in a Foucauldian sense, in medicine. The disciplining of the body through the work of nursing emerges out of the Victorian era and formal training

processes, most notably linked with Florence Nightingale (Nelson, 1997). In making nurses "professional", especially escalating in the nineteen fifties, nursing as a field became a science, one that operated in-between the body as living flesh and medicine. Inhabiting a place within *nursing science*, the nurse is required to use a scientific method of problem-solving in relation to the body as living flesh that is methodical, evidence-based, and yet pliable enough to adapt to the complexities present in the healthcare system.

Nursing as a discipline belonging to the natural sciences is most often linked with notions of a medicalized body because the rationale used to justify the disciplined work of nurses is found in accounts of the corporeal body that are medical. Nurses defer to medicalized notions of the body to make *truth claims* about the body for the record, because the truth games of medicine generate scientific notions of the corporeal body that exclude the intuitive, the sublime potential of the body as living flesh. This same process of exclusion restricts the scope of how a physician and a nurse take account of the body's truths. Although I have witnessed the intuitive work of physicians, I concentrate here on nursing because I have more personal access to intuitive processes that help shape the nurse's in-between role.

Nursing can be seen as a collection of practices designed to attend to the body as living flesh that are not easily textualized. Of course, many nurse theorists discuss nursing expertise and the phenomenology of nursing work (P. Benner, P. L. Chinn, and P. Watson for example), but I do not draw on them in my analysis because they do not directly address the production of subjects in discourse, such as the "polio patient" or the "nurse" as though they are *subjects of a particular kind* in a postmodern or poststructural

sense. Here, I am talking about taking into account the power involved in *becoming* something or someone and its link with knowledges of the body, a link Foucault takes account of in his discussion of *biopower*. In his explication of "bio-power", Foucault determines that the medicalization of bodies reconfigures the design of coercion and the forms of influence on individuals within society shift so that control over individuals is enacted less from direct physical force and more toward a subtler form of governance in which individuals learn how to *be* the subject they are designed to be by disciplines: the "patient", the "prisoner", for example (Foucault, 1984a, p. 262; Foucault, 1972/1984).

Foucault's account of the subject in medicine (and I note in nursing) is thus one created by the association between ideas conveyed in narratives constituting the human body and the work performed on or with the body as living flesh. For Foucault, the body and its sense of "self" exists in medicine only insofar as it is *constructed* within the truth games of medical science, which attribute to the corporeal body via narratives, highly technical and inter-related schemas for its form and function. In the case of the poliobody in medicine before Kenny, the narratives used to make sense of its form and function are the same narratives restricting its ability to be constructed differently. This restriction in knowledge about the body hence leads to practices that limit the choices for healthcare workers to respond to the corporeal body and, most importantly, the restriction leads a severe impingement of the body's freedom.

I examine how Kenny's methods present to the poliobody possibilities to be freed from the constraints it is *subjected to* in discourse sustaining a medicalized poliobody. And in order to explicate this form of freedom, I draw on Foucault's *techniques of the self, cultivation of the self* or *practices of freedom*.

Practices of Freedom

Foucault's practices of freedom involve an approach to the notion of freedom that differs greatly from approaches commonly taken in Western societies (Foucault, 1984/1987). The narratives of Western ethics refer to "rights", "freedoms", and "responsibilities" that address essential qualities and behavior of humans. From this perspective, there are theoretical sign posts and boundaries around what constitutes "freedom" that rely on human rights as entities which transcend social and temporal context and are attributed to a foundational subject. Foucault, on the other hand, explicates freedom without relying on a human rights and the foundational subject. He does so by exploring the emergence of a sense of "self" and "freedom" through processes in discourse (Foucault, 1987; Foucault, 1988; Foucault, 1988b). Foucault examines how a subject can be freed from the constraints it is *subjected to* in discourse, which constitute the subject via knowledge emerging from disciplines.

In my analysis, I suggest Kenny and the polio survivor as subjects are freed in some ways from the constraints they are subjected to in scientific medical discourse. And I add here that in taking a Foucauldian approach to history, I declare I am freed from the constraints of discourse related to historiography, which have the potential to subject me so that I have no option but to be a *subject of a particular kind*. However, I wonder if the subject's freedom is sustained when inscriptions of it are circulated and transformed within poliobody discourse. I question this form of freedom because I note the poliobody discourse valorizes a medical examination of the poliobody as an object of Nature while it marginalizes approaches to the body as living flesh which take note of it as something with potential for the sublime. There is probability, hence, that the forms of freedom

Kenny's practices provide become transformed so that they influence the creation of entities and categories in discourse that are not distinguishable from discursive unities, like the role of "nurse", or "the paralyzed body" existing before Kenny's practices emerged. In my discussion, I wonder if the freedom Foucault discusses might be too immense in its scope, too complex and difficult to take account of effectively, beyond the making of stories like the stories we construct about the past and the bodies that inhabit it.

I explicate this issue and the others I presented earlier, via analysis imbedded in a discontinuous narrative contained in the following 4 chapters, each having a different focus for analysis. Some strands of the Kenny story will be re-told in the chapters, albeit somewhat differently, as though there could be more than one thing happening at once in my history. All the chapters, though, are meant to examine the foundational body in medicine; the narrative closures that sustain and constrain it in discourse; and the subject positions that individuals (humans and non-humans) take up in relation to the poliobody as a referential.

The next chapter refers to a story about Kenny and her work that is structured using her life with its beginning, middle, and end, developing through linear time. This approach to structuring time within the narrative is in keeping with an attitude toward time seen in histories of the upper and lower cases. But chronology alone does not provide a structure for the story I tell next. To add structure to my next story, I focus on particular events in time that I (and many other writers and historians) deem important. These events, I expect, will be used by the reader as context from which (s)he can draw an account of Kenny's life and her work. What I wish to convey, though, is that once my

first story of Kenny's life and work is told, I am not finished my history. There are other stories to be told--influenced by different conditions of telling--that do not have an end so much as they offer up possibilities to develop different accounts of Kenny, her methods and their impact.

A Beginning

In this chapter, I offer a story about Kenny, the contributions she makes, and the controversy she causes, set in the context of her life, structured by the linear organization of time. The story I tell is a compilation from the histories and biographies of John R. Paul (1971), Victor Cohn (1975), John R. Wilson (1995), Christopher Rutty (1995), Tony Gould (1995) and Kenny herself, in collaboration with Martha Ostenso (1943), supported by letters, reports, journal articles and newspaper clippings.

The key figure of the story in this chapter is Kenny and my analysis here focuses on how her life experiences influence the development of her methods while at the same time, the methods influence and shape her life experiences. This linear progression in the context of a life acts as a ground for conceptualization; it is the way we are most *used* to reading history. What the reader will discover in this chapter is that despite the presence of a linear framework, the story flows back and forth around particular times and events. In this way, the story is more than a chronology; it is constructed using points of interest that serve my purpose as a historian. For example, I introduce the names of human actants and set them in relation to Kenny as friends or foe, I offer up important dates, geographical locations, arrivals, departures, discoveries and developments as though they are events worthy of the historical record. Here in this chapter, Kenny's life is packaged, just the way I want it to be, for now. The chapter has an accompanying table so that the reader can refer to it when necessary while reading the rest of the paper (see Appendix C). In subsequent chapters, I do not present analysis that follows a linear path, but this does not mean that I deny lineage. Rather, I suggest that when this initial narrative is deconstructed, different stories about Kenny and her methods emerge.

A Story of Sister Kenny

Formative Years

Elizabeth Kenny was born on September 20, 1880, at Kelly's Gully, Warialda, New South Wales, Australia. Her parents were Irish immigrant farmer, Michael Kenny (aged forty-four) and "half Irish" wife Mary Kenny (nee Moore), aged thirty-seven (Kenny/Ostenso, 1943, p. 2). Between 1886 and 1895, Elizabeth attended primary school and she also attained an education in music and religion by her mother at home. By 1905, Kenny explored options to offer religious instruction to children (Wilson, 1995). However teaching was not her only endeavour. She also sold vegetables between 1907 and 1909 on commission in a town called Guar in New South Wales (Kenny/Ostenso, 1943).

Kenny's interest in the human body and its operation appears to have started in childhood, when she claims to have studied anatomy and physiology with older brother, William, a weightlifter whom she helped to train. In watching William, she learned how to locate muscles and bones and gained an understanding of how muscle groups worked together (Kenny/Ostenso, 1943).

By 1909, Kenny entered a two year training period to be a nurse (Kenny/Ostenso, 1943), spending time with a Midwife from Guar and perhaps did some "slum-nursing" in Sydney (there are no records of this, just Kenny's verbal reports) (Wilson, 1995). By 1911, Kenny identified herself as a "bush nurse", offering treatment to those living in remote areas of South Queensland, a district in Australia where there were no formally trained health professionals available and costs to attain treatment from a physician was prohibitive for many homesteaders. Her advisor then was not another nurse but Dr.

Aeneas McDonnell, a well respected generalist who worked several hours away by horseback. McDonnell became Kenny's primary Australian medical supporter in the future (Kenny/Ostenso, 1943; Wilson, 1995).

The Discovery

Support was requested by Kenny in Autumn of 1911, when she, in a homestead, came upon a two year old girl with poliomyelitis symptoms. Kenny could not identify the name for the pattern of symptoms presented by the child: fever, painful, twisted and flexed limbs, having no corresponding treatment for them. When Kenny sent a telegram to McDonnell regarding the symptoms, he reportedly offered this response: "Infantile paralysis. No known treatment. Do the best you can with the symptoms presenting themselves" (Kenny/Ostenso, 1943, p. 23). The symptoms Kenny encountered were those she identified from the surface of the body. She could feel the shortening of muscles (contraction) by observing and touching the skin over them (Kenny, 1946). She knew that these contracted muscles could cause loss of use and deformity in affected parts. So in response to these 'contracted' muscles, Kenny developed, through trial and error, hot fomentations or hot packs made from Australian (boiled) wool, dipped in boiling water, wrung out completely. These hot packs relieved pain and the hyper contraction in the affected muscles and hence prompted mobility. Kenny encountered six children in total with polio symptoms such as fever, twisted or flexed, contracted abdominal muscles, inability to voluntarily move limbs and/or torso, and extreme pain at rest--increasing with attempts at passive movement. All six were able to walk and move freely after the implementation of her treatments (Kenny/Ostenso, 1943, p. 22-23).

Kenny's methods progressed beyond the use of hot packs, however when they did so is not clear. Certainly, she had experience with treating polio patients as well as a general population of patients after the opening of her "cottage hospital" in 1911, St. Canice's. At St. Canice's, Kenny notes that she offered the same regimen of treatments she offered in 1943 (Kenny/Ostenso, p. 30), but she neglects to discuss the development of her regimen as a systematic package of treatments. In 1911, polio was still uncommon in Australia and there was little knowledge amongst general practitioners regarding the diagnosis and treatment of the disease. Perhaps because of the rarity of the disease and the lack of expertise about it in the medical community, Kenny's early practices at St. Canice's were not met with resistance. It was thus not resistance by others that derailed momentum for the development of Kenny's work at the hospital, but World War One, which took Kenny in a different direction.

World War One

By 1915, Kenny enlisted in the Australian Army Nursing Corps, finding her own way to London to apply, armed with a letter from McDonnell who was an examiner for the Queensland Branch of the Australian Trained Nurses' Association. McDonnell's letter attested to her competence because Kenny had no formal nursing certificate (Cohn, 1975; Kenny/Ostenso, 1943). Without a formal certificate or equivalent, she could not serve as a nurse in the army. Kenny finished her probationary period at a military hospital and was promoted to the rank of Sister on December 20, 1916 (Wilson, 1995). Other nurses, she recalled, did not treat her warmly but her patients loved her (Kenny/Ostenso, 1943). Although she sustained a leg wound from shrapnel in 1915, she remained a part of the corps, shifting her role to an escort nurse on troop ships after a time of convalescence. At

the end of the war in 1918, Kenny had progressed from being a non-nurse to being a *charge nurse* at the Enoggera Army barracks outside of Brisbane (Wilson, 1995). Unfortunately in January, 1919, she contracted a virus that caused inflammation to her heart (myocarditis), forcing her to leave the army and return to the home of her parents in Nobby, on the Darling Downs of South Queensland (Kenny/Ostenso, 1943).

Back Home

While convalescing the second time, Kenny initiated and became president of a local chapter of the Country Women's Association of Australia, part of a network of women "devoted to service by country women for country women who hitherto had been forced to meet their problems alone" (Kenny/Ostenso, 1943, p. 76). As a self-sufficient countrywoman, Kenny offered up a solution to a problem she met circa 1926. A neighbourhood child, Sylvia, was the victim of an accident and required a stretcher. Kenny produced one for her and in doing so she made some innovations which were recognized internationally. Kenny marketed her invention, the "Sylvia" (manufactured by a company in Sydney and sold internationally) won a certificate of Merit from the Institute of Patentees of London in 1926 (Wilson, 1995). The success of the Sylvia became very important to Kenny because she used proceeds from the patent of the stretcher to fund some of her personal and professional expenses for the rest of her life. She made an agreement with the manufacturers of the Sylvia indicating that she should get a minimum annual sum in British pounds, equivalent to a range between $750 and $1,000 American dollars, despite the fact that by the mid-1930's the sales of it dwindled to a few per year (Cohn, 1975, p.71-75). Not only did Kenny break ground as an inventor with the Sylvia stretcher in 1926, she also, at the age of 46, took up the role of mother,

adopting a young girl named Mary Stewart, whom she referred to as her 'niece' or 'ward' in later years to avoid explanations about how she came to have a daughter (Kenny/Ostenso, 1943; Gould, 1995; Wilson, 1995). [vi] Despite the divergence in her roles, Kenny's expertise in caring for those with infantile paralysis drew her once again to work as a nurse.

Townsville Clinic

In the early 1930's Kenny was being asked to see individuals with infantile paralysis who had no success with other forms of treatment. She eventually opened a free treatment site for those afflicted with the same disease, cerebral diplegia, and birth palsy in the backyard of a house in Townsville, Queensland (Kenny, 1946; Kenny/Ostenso, 1943). At that site, it is clear that she began to offer exercises in warm water, aided in overall care of patients not by other nurses, but by the parents of the stricken children (Kenny, 1937; Kenny/Ostenso, 1943). Kenny's services were reportedly free, a boon to parents who could not afford to pay for medical treatment during the Depression years. News of Kenny's methods soon came to the attention of junior medical officers from the local government hospital and Kenny was subsequently scrutinized by the Commonwealth Health Officer, Dr. (later Sir) Raphael Cilento, also a Barrister-at-Law. Kenny noted that Cilento's scrutiny became her first encounter with "that *bête noire*, bureaucracy" (Kenny/Ostenso, 1943, p. 86; Wilson, 1995).

Cilento was encouraged by the results that Kenny was getting and spearheaded negotiations with the Queensland government for financial support of Kenny In order to gain the financial support, though, Cilento was required to submit some documentation to

the Health Minister, Edward Hanlon, and Cabinet, about the benefits of Kenny's method (Cohn, 1975).

His initial report went to Cabinet on December 12, 1933, and it was both complimentary and critical, leaving some options open for Kenny. Cilento reported Kenny "produced results remarkable enough to attract the surprise [*sic*] and inspire the confidence of both lay and medical witnesses" (Cilento cited in Kenny/Ostenso, 1943, p. 97). He also noted that Kenny had little new to offer, perhaps even opening the possibility of harm to patients (Cilento's report cited in Queensland Commission Report, 1938, p. 188). The report indicated Kenny did not present cases in a way to link her methods to a cure, and her presentation of ideas was not in keeping with presentations by learned individuals, such as physicians; "references by Sister Kenny to such matters as 'the dimple in the back of the neck' were regarded as ludicrous, and produced a bad impression" (Queensland Royal Commission Report, 1938, p. 188).

Still, Cilento saw promise and his report recommended that the sister's methods be studied by members of the medical profession for a period of at least six months to test for their safety and efficacy. During the period of this scrutiny, state funding for the Kenny's methods began, which allowed for the *Sister Kenny's Experimental Muscle Re-education Clinic*, to open on March 1st, 1934, serving seventeen patients, staffed by Kenny and one other assistant in Townsville (Kenny/Ostenso 1943; Wilson, 1995).

Brisbane Clinic

Before the six months had elapsed, poliomyelitis epidemics recurred in Queensland and there was mounting pressure by parents and general practitioners for Kenny's treatments, so much so that an *Elizabeth Kenny Clinic and Training School*

opened in the central Brisbane district (Wilson, 1995, p. 38). At the school, nurses and physiotherapists were trained in Kenny's practices, supervised by Kenny and physicians, the latter taking up formal roles of authority. Along with the clinic and training school, two other Kenny clinics opened, one in Toowoomba and the other in Sydney. Indeed, there was a network of Australian Kenny Clinics emerging, and by 1937, they employed three full-time physicians and forty eight clinicians performing Kenny's methods, 40 of whom were nurses (Wilson, 1995, p. 39).

All the while that the clinics were being opened, there was press coverage of them. Kenny herself initiated much contact with the press, submitting to them letters, and later press releases about her treatments (Cohn, 1975). It was due to this publicity that Kenny began to gain broader support from the public, while at the same time she gained the attention of medical practitioners. Those who rejected the use of hot packs and provided immobilization during acute stages of the disease, were labeled in the press coverage and other statements by Kenny as members of the medical "orthodoxy", who were set in opposition to her because of their rejection of Kenny's ideas. Kenny often reacted to criticisms launched against her by orthodox practitioners by issuing press releases or by offering interviews in which she would air her grievances (Cohn, 1995). Her public responses to criticism were unprecedented in the medical field. They made the work of her supporters in medicine harder because she was seen to insert into her clinical practices values and personal beliefs that did not belong in the realm of scientific medicine. Indeed, Kenny was considered to be more of a pugnacious zealot than a scientist.

> With the zeal and enthusiasm of an evangelist, she tried to convert the medical profession to her way of thinking. This she found to be a difficult and often impossible task. Her Irish temperament was such that although she dearly loved a fight, she could not brook opposition, and it was impossible for her to see any point of view other than her own. At the same time she was most impatient with those who disagreed with her. This type of attack naturally resulted in a continuous dissention between her and the members of the medical profession who would neither listen to nor embrace her ideas. (Knapp 1955, p. 510)

As the press coverage depicted Kenny at odds with the medical orthodoxy, information about polio and its various forms of treatment were circulated in the press. Kenny's form of treatment was deemed preferential by those in the press. The public's awareness of an effective alternative to orthodox medical treatment engendered a demand to sustain and mainstream Kenny's methods; however, the methods themselves were not allowed into the realm of being approved by medicine until they withstood experimental inquiry. Hence, the demand for her work in combination with the need to prove its truth-value placed Kenny's methods in a paradoxical position of being both "mainstream" and "experimental".

By mainstream, I mean that elements of the methods were taken up by most medical practitioners in Australia, many modifying their work to restrict periods of immobilization and offer comfort through the use of hot packs (Cohn, 1975; Gould, 1995; Kenny/Ostenso, 1943).

While the experimental status granted to Kenny's methods was reported to be in alignment with the experimental status of all new therapies. Each patient brought into Kenny's care was determined to be potentially part of a clinical study. Family members were accordingly required to document their choice for Kenny treatment instead of the orthodox methods in letters or telegrams, which were submitted to the medical

superintendent of the given hospital or clinic (Downey, 1935; Giladgen, 1939; Pascoe, 1939; Stringer, 1939). Within the context of these clinical trials, Kenny was initially only allowed to treat those who were in the convalescent, and chronic stages of the disease. The rationale for this restriction given by medical supervisors was that there were too many unknowns about the effects of Kenny's work on the nervous system in acute stages (Kenny/Ostenso, 1943). The formal designation of children being a "vulnerable population" was not overtly acknowledged but I suggest this was implied in statements about saving children from the disease.

In treating children in convalescent and chronic stages, Kenny and her staff were offering rehabilitation for contractures and preexisting deformity rather than preventing the damage. Kenny sought the ability to work with those in acute stages of the disease and there is evidence that she was allowed to do so, although this was not formally part of the regimen at first (Cohn, 1975). Work with acute cases thus became a means to show her detractors that her methods were a viable alternative to orthodox practices, which she claimed brought harm to patients, calling for them to be banned (Kenny/Ostenso, 1943). However, those studying Kenny's methods were not offered money and institutional space to test whether *orthodox treatments* were harmful. Rather, they were to test for the benefits and harm of Kenny's methods in isolation from orthodox treatments.

It was her questioning the need for orthodox medical intervention in acute polio that was a flash point in her struggles with the medical orthodoxy, one that was well publicized thanks to Kenny. She portrayed herself as a health provider who was deserving of recognition and funding because of the merits of her practices, not because she was a medical doctor. Kenny's views about dethroning the authority of medical ideas

were in alignment with the Queensland government's, whose members responsible for Health, Minister Hanlon (Cohn, 1975) and Cilento in particular, welcomed a questioning of the authority medical men had over the healthcare system, especially after the Labour party, advocating publicly funded healthcare, took power nationally in 1934 (Cilento, 1944). The left-leaning politicians envisioned nationalized medicine which would require physicians to be salaried, public employees, expected to relocate to rural and remote areas where demand on health services was high. This vision was set out in the document, "Blueprint for the Health of a Nation", written by Cilento (1944). I suggest Kenny was unknowingly sent on a reconnaissance mission for the Labour Party because she symbolized resistance to medical authority over health institutions that could not be overtly expressed by elected officials, especially those who were physicians.

Still, without scientific validity, Kenny's methods could not be offered with the sense of certainty engendered by scientific proof. After all, government funding was to be given to legitimate healthcare operations, not snake oil dealers. So, when Kenny requested a committee of medical men to investigate the results of her methods compared with orthodox treatments, so as to prove the safety and effectiveness of her methods, a committee was readily struck. Little did Kenny know how duplicitous some of its members were.

The Commission

By October 1935, a committee of eight physicians and Chairman, Charles August Thelander, began to oversee Kenny's work twice per week. Forty-seven patient cases were offered as evidence (Queensland Commission Report, 1938). What started as a "scientific" investigation soon emerged also as "political". Kenny's links with the

Queensland Health Ministry did not go unnoticed by the medical men investigating the merits of her treatment. The committee, concerned about its scope and authority noted its "position might be unsatisfactory as regards powers and unsafe as regards privileges" (Queensland Commission Report, 1938, p. 188), and so it requested and was granted the status of a Royal Commission, which then had legislation backing its recommendations:

> And we do hereby require and enjoin you to make diligent inquiry into the matters aforesaid, and for the purpose to exercise all the powers conferred upon a Commission by "*The Official Inquiries Evidence Acts,* 1910 to 1929" or any Act or Acts in substitution thereafter or in amendment thereof...
> (Queensland Commission Report, 1938, p. 188)

The Commission was then granted the ability--by law--to call upon witnesses to testify as to the effectiveness of Kenny's methods. The first stage of investigation asked physicians and public health officials to submit information about the "detrimental end results of the Kenny method of treating paralysis" (Lahz, 1935). Failing the submission in writing, the Commission reminded physicians that they might have to attend and be examined at a "public sitting" i.e. a hearing (Queensland Commission, 1936). In the second stage of investigation more neutral questions were asked: 1) The degree to which the child was affected; 2) The child's present condition, if alive, and ; 3) The person who treated the case. Submissions in this second stage also varied tremendously, ranging from verbatim subjective reports and the issuance of "verdicts" regarding cases (Guinane, n.d.) to one word answers such as "slight" to question number one, for example (Connell, 1936) and "completely recovered xxxxxxxxxxxxxxxxxx." (x's covering a statement) to question number two (O'Brien, 1936).

The request for documents was met with resistance by physicians, not necessarily because they were overtly in favour of Kenny. Some feared negative repercussions due to

breaches in confidentiality, given that letters regarding Kenny's treatment and its detrimental effects had been written to them in confidence (Physician a, 1936). Kenny was seen by many to have powerful links with the public and government that apparently made her detractors think twice about criticizing her. The general superintendent noted in a letter, dated May 19, 1939, to Dr. Kenneth Starr, a key person involved in the Commission process: "With the backing that Miss Kenny has had from the Government and the Home Department here, I anticipate a lot of trouble and worry" (General Superintendent, 1939). A lot of trouble did arise as a result of the Commission's inquiries, but the Queensland government did not formally defend Kenny.

Along with the fear of recrimination, there were questions about the quality of the scientific inquiry engaged in by the Commission. One physician noted a problem with the questions the Commission asked, for he wondered about what practices actually caused the detrimental effects, given that modifications had occurred in the "Kenny method" since its introduction into medical practice.

> In the first place it is difficult to correlate for the purpose, letters received relating to the earliest unorthodox type of treatment (the 1933/1934 method based on combined vibratory and suggestive stimuli to reaction); those relating to the later (Townsville 1934/35) method, (both stages); and those referring to the still later semi-orthodox Brisbane modifications. (physician b, 1935)

Despite the above resistances, the Commission did call upon individuals to testify (Lahz, 1935).

Certainly, the Commission's investigation was not one that could be considered scientific in its processes; there were too many biases evident on the part of investigators and data collection was marred because clinical settings were not controlled. Ironically, its claims held about as much water scientifically as Kenny's claims to success. However,

this fact did not stop the commission from publishing its findings as "scientific evidence" after twenty-six months of deliberation.

A full report of the Commission's work was tendered on New Year's day January 1938, and a summary of its contents was published in the "British Medical Journal" on February 12, 1938. The summary suggested that there was little difference between Kenny's treatment and the orthodox treatments except for one important principle: mobility. The summary also noted Kenny's work was "brought into conformity" with the orthodox methods because her contact with medical men helped her learn the proper techniques for care. And it said that Kenny's complete abandonment of immobilization and splints was harmful to patients (Queensland Commission summary, 1938, p. 350). As well, the summary noted Kenny's intense and long term work with "cripples", who had no hope of recovery, was a "cruel" waste of time, which could have been spent on traditional vocational training. And, its authors added, her methods were a waste of money for taxpayers.

This was in contrast to Kenny's notions (and no doubt the Health Ministry's) that her work would save money, for it shortened time in rehabilitation (Kenny/Ostenso, 1943; Cohn, 1975). The report added that Kenny's claims of success were overstated and not based in reality, and her forceful personality as well as her unending hope in the possibility for the benefits of her treatment deluded parents and patients into a sense of "unshakeable loyalty" that she did not deserve, based on the evidence derived by the Commission inquiry (Queensland Commission Summary, 1938, p. 350). If Kenny clinics were to remain open, against the advice of the Commission, it was "strongly urged" the clinics be "placed under the control of a competent orthopaedic surgeon or surgeons" to

render "a sane and balanced view of the patient's possibilities" (Queensland Commission Summary, 1938, p. 350).

Despite this damning report, the Kenny clinics remained open, seemingly with little change in the provision of care. As a matter of fact, 5 *more* opened during the year of the report in cities across Australia. A few factors seemed to have contributed to this. First of all, Kenny did have many supporters in the medical community, some of whom published a more favourable report of her methods shortly after the summary and Commission's report (Kenny/Ostenso, 1943). Likely more importantly, there were outbreaks of polio across the country and the established Kenny clinics offered close observation and comforting care to patients that could not be offered in orthodox settings because there were no administrative structures in regular hospital wards to provide such intense attention. As a matter of fact, Kenny was not in Australia when the report was published. She was instead in England, where she was engaged in the business of opening more clinics, which involved further investigation of her methods.

England and Other Departures

In April, 1937, Kenny travelled to London upon request of a wealthy couple to treat their spastic baby (Cohn, 1975; Kenny/Ostenso, 1943). Kenny was subsequently successful in petitioning a physician named Menzies to organize funding for an experimental Kenny unit at Queen Mary's Hospital for Children at Carshalton, one hour from central London. In this new geographical context, Kenny's methods became experimental once again in "order to ensure proper assessment of the value of the treatment...to observe and investigate it" (London County Council, 1938). At Carshalton, Kenny treated 43 children on the ward and she served as an expert assessor, asked by

parents to go to Paris and Warsaw to treat their children or refer their children to Carshalton (Gould, 1995). Still, decisions around implementation of Kenny's methods were formally made by physicians, not by Kenny and her assistants.

In October, 1938, the "British Medical Journal" published a report, submitted by the London County Council after their observations at Queen Mary's Hospital, which was in favour of Kenny's practices. Outlined in it: hot fomentations and hydrotherapy were of value; concentration and intensity of treatment were commendable; early exercise was simplistic, compared with massage practices of the day, but certainly carefully modulated and not harmful; and conditional support was offered for the removal of splints and rejection of surgical appliances in the early stages of the disease, however splints and surgery were still considered part of necessary treatment in particular cases. Kenny was also noted in the report to have abandoned "her claim to effect a complete cure" in every case (London County Council, 1938, p. 854).

Although the Carshalton report was not glowing, it offered a counterpoint to the report submitted by the Queensland Commission. Kenny subsequently referred to it as such in letters and interviews upon her return to Australia in 1938. Not only had other Kenny clinics opened in Australia in her absence, her methods were being condoned for use in hospital settings outside of Queensland. Despite the fact that Kenny's methods appeared to be mainstream, they were still considered by medical supporters to be experimental, for no conclusive evidence of their benefits had been produced through inquiry. Inquiry soon became more difficult to arrange because of World War II.

War and New Horizons

By 1939, World War II broke out and money for research and treatment outside of the war effort diminished. The newspapers were full of information about the war against the Nazis rather than the war against the microbe. Doctors and nurses were recruited to be part of the Australian army and for a time, the Brisbane clinic was closed down not because of a disagreement but because of a paucity of workers and funds (Kenny/Ostenso, 1943). So, a small number of medical supporters, Dr. Herbert Wilkinson, Lee, Fryburg, Arden, Pye and Nye, spearheaded an effort to send Kenny to the USA so that she could continue her work in a nation not yet encumbered with the costs of war (Kenny, 1946). Wilkinson saw great promise in Kenny's theories about heat, exercise, and incoordination. (Cohn, 1975). Lee had just been to the Mayo Clinic in Rochester, Minnesota, and Nye and Arden knew the chief of Orthopedics there, Melvin Henderson (Cohn, 1975). Kenny received funding to take the journey to America, which appeared to be marked as a blessing of her work by the Health Ministry. This blessing is treated differently by historians. Rutty (1995) sees it as a way to get Kenny, a master of media manipulation and possible loose cannon, out of the country. Whereas Wilson (1995) and Cohn (1975) interpret it as a way to further test the Kenny method using scientific analysis in a country that could afford the research.

The World of the NFIP

Kenny was entering into a country with a well established system of polio care and a funding base for research that Australia could not match. This funding base could be attributed to the fact that the USA was not yet involved in fighting with the allied

forces, but it was more likely due to the network of associations around one Franklin D. Roosevelt, as a "poliobody".

In 1921, Roosevelt, a lawyer and aspiring politician, was struck with polio that left him weakened and deformed in his legs. Subsequently, he sought treatment called hydrotherapy at the Warm Springs, Georgia. In 1924, Roosevelt purchased the Springs property and shortly afterward he started the Warm Springs Foundation. Paul (1971) noted the foundation's mission: 1) "to give aid to patients through the skill of an able, carefully selected professional staff, in a place with agreeable surroundings and natural warm water", and 2) "to pass on to hospitals and the medical profession of the country any useful observations or special methods of proved merit resulting from this specialized work which might be suitable for practical application elsewhere" (p. 302).

In 1928, Basil O'Connor, originally Roosevelt's law partner, took over work as the President of Warm Springs Foundation. In 1932, Roosevelt (FDR) was elected President of the United States. By 1934, large fundraising events were initiated to raise money for polio research. In 1938, to make polio fund-raising separate from the Oval Office, another Foundation was initiated: the National Foundation for Infantile Paralysis (NFIP) (Paul, 1971).

Basil O'Connor was then named head of the NFIP, which relied significantly on proceeds from a funding strategy called the "March of Dimes", started also in 1938. The name March of Dimes is said to have come from a statement that comedian Eddie Cantor made during a meeting; he said dimes should be sent to the White House to raise funds for poliomyelitis research. In its first year the March of Dimes raised $1,000,000 (that is in the Depression years quite a sum), indicating that it was an enormously successful

campaign which grew in its scope via media coverage about the mysteries of the disease "polio" and its devastating effects on the body--especially children's bodies--and the possibilities to protect, prevent and correct those devastating effects via laboratory research and public education (Paul, 1971). A select few were chosen as poster children for their "cute" abnormality, looking deformed, but not in a way that was too unsettling so as to project a sense of possible improvement in their functioning (Rutty, 1995). Adults also couldn't escape the disease, for even the President was affected.

The public was primed to the possibility of infection. Media coverage highlighted the unpredictability of "epidemics" and their effects while at the same time offering up information about the fight against the disease in the clinic and the laboratory. Likely due to the drives for media coverage by the NFIP, science was involved in most polio stories, public and personal. It was not adequate for those with polio to merely survive, they were expected to thrive with the help of physicians, physiotherapists, and nurses (Rogers, 1992). Indeed, they were expected to make a "*perfect* adjustment" to life after polio (Sheed, 1995, p.15).

Roosevelt's personal story of polio spanned the divide between private struggle and public victory. He was portrayed as someone who thrived, despite the effects of polio. He was extremely sensitive about his body image, though, and insisted that he be portrayed as an able-bodied man. As a consequence, he was only allowed to be photographed, filmed and viewed from particular angles and he was to be seen as independent as possible, despite his leg braces, his frequent need for support by cane or another person to stand, and his use of a wheelchair (Rogers, 1992).

The USA and Canada appeared to benefit from the research findings sponsored by the NFIP, research that did not appear to critique early immobilization in studies beginning in the 1920's. Scientific evidence suggested the overuse of "fragile" muscles in acute stages might cause permanent damage. Roosevelt himself was said to have received massage in early phases of the disease, which might have made his paralysis worse (Rogers, 1992). Long periods of immobilization were followed by intensive rehabilitative exercises and training, frequently accompanied by correction using orthopedic surgery. Poliomyelitis treatment hence became expensive, especially after 1916 when more and more people were trained in disciplines working with capacities of the body to regain productivity, such as physiotherapy, massage, vocational training (occupational therapy), and orthopedic nursing, in addition to orthopedic surgery (Paul, 1971).

Despite all of the work to regain productivity, the efforts to prevent paralysis and deformity in the first place were seldom successful. Mobilization, such as the ability to sit, stand and walk frequently with forms of assistance and braces, was key. And the potential to find work or a vocation was another goal. Those who fell outside of the boundaries of success, by not meeting the benchmarks set for recovery were in a place marked for failures; they were "cripples" (Keesing-Styles, E., 1992). In Australia, Kenny was freely allowed to work with the "failures" from orthodox treatments and covertly allowed to work with those with acute polio. Whereas with her move to the USA, she had her sights set on the ability to freely work with polio survivors in the acute stages of the disease, free from the restrictions placed on her work, with its experimental status, in Australia and England (Cohn, 1975; Kenny/Ostenso, 1943).

Arrival

On April 6, 1940, Kenny, aged 59, arrived in San Francisco accompanied by her daughter. The press greeted her and knew of her work in Australia. Kenny visited places where some work was done with mobilization, mostly water therapy. She travelled to New York and spoke with medical people there, but not much interest was shown to her. She talked with O'Connor (who had been given a letter of introduction prior to her arrival) about funding research but the NFIP granted funds to *institutions* that did research, not individuals (Paul, 1971). In Chicago, she talked to physicians from around the country at the annual American Medical Association meeting, but she was thought of as odd and was not taken too seriously (Kenny/Ostenso, 1943). Kenny then went to the Mayo clinic in Rochester, Minnesota and spoke with Dr. Henderson, who had been also given a letter of introduction about her work. In addition, she was introduced to Dr. Frank Krusen, the country's leading teacher of the new discipline, physical medicine. There were only a few cases of poliomyelitis at the Mayo, so Kenny went to the Gillette State Hospital in Minneapolis, where she was introduced to victims of the 1939 polio epidemic.

The day after her arrival in Minneapolis, she met Wallace Cole, the chief of orthopedics at University of Minnesota Medical School. And she met Midland Knapp, a surgeon by training and the head of the two year old Department of Physical Therapy. Six days after her arrival in Minneapolis, her demonstrations at Gillette made quite an impact, for she showed that in a period of days that "spasm", as she called it, could be relieved, leading to freedom of movement and improved functioning (Kenny/Ostenso, 1943; Cohn, 1975). One physician even ordered the removal of frames, splints, and casts

from all his cases at Gillette and St. Paul's Children's (Kenny/Ostenso, 1943; Gould, 1995).

Kenny soon met Dr. John Pohl a specialist and orthopedist at the city hospital. Pohl was skeptical but let her treat a young man, named Henry Haverstock, who had been stuck with polio in 1939 and was unable to sit or stand without mechanical assistance, despite four months of therapy, which included physiotherapy under water and the fitting of braces at Warm Springs between February and June, 1940. After Kenny's treatments, Haverstock was able to move and walk independently. With this success, Pohl's skepticism ceased and he was to become the third physician, along with Knapp and Cole, to staunchly support Kenny (Cohn, 1975; Kenny/Ostenso, 1943). Subsequently, at times during her demonstrations and proposals, Kenny required members of this trio to be "mediators" so that they could translate her "opaque terminology into acceptable medical language" (Gould 1995, p.98).

New Allies and New Enemies

One act of mediation was particularly important because it helped Kenny gain credibility. In 1941, Kenny received funding for a clinic from the Minneapolis Board of Public Welfare after her proposal was translated by Pohl, and she received money from a philanthropist, I. S. Joseph (Cohn, 1975). This funding allowed Kenny to have some space and equipment. She soon moved to a ward dubbed "Station K", the Kenny ward at Minneapolis General Hospital. The University of Minneapolis was granted money from the NFIP to study the Kenny's methods and support grantees with living expenses. Now that she was attached to an institution, Kenny had a link to NFIP funds. In addition to Station K, Kenny was eventually granted a seventeen bed ward at University of

Minnesota Hospital (Cohn, 1975; Gould, 1995 Kenny/Ostenso, 1943). On both wards, as well as at Gillette, Kenny's work was scrutinized for its benefits and possible harm, mainly by Cole, Pohl, and Knapp.

In June of 1941, a favorable "preliminary report" of Kenny's work observed between June and December, 1940, was published by Knapp and Cole in the "Journal of the American Medical Association".

> Miss Kenny has presented ideas which are new in the symptomatology and treatment of infantile paralysis. The technic [*sic*] is essentially a highly refined and detailed method of muscle reeducation. Results have been obtained in the cases of acute involvement which seem superior to those secured with therapeutic procedures previously generally accepted. One may not invariably agree with her explanations, but the results seem significant. (Cole & Knapp, 1941, p. 4)

Kenny worked with physiotherapists and nurses and she wanted to supervise the teaching of them as well as medical practitioners in her methods, but this latter role was not granted to her because her ideas about polio were not popular, nor defensible by medical science. In an effort to assess her ability to teach others about rehabilitation, Henry and Florence Kendall, physiotherapists who were authoritative leaders in rehabilitative work, came to see her in mid-January, 1941. This couple believed in early splinting with long periods of rest, conserved exercise, heat and massage for polio treatment, a view taken up in their Baltimore Method (Cohn, 1975; Gould, 1995). The Kendalls, who measured the success of their work by electromyography, or the measure of electrical impulses in muscles (emg), came to the conclusion that Kenny should not be granted the authority to supervise teaching of her own methods because the effects of her work were not confirmed to be truthful by way of statistical analysis. After this 1941 report, Kenny took up an oppositional stance to the Kendalls that lasted the rest of her

life. She repeated in statements to the press and in letters the belief that the Kendalls had not observed her work directly, beyond a brief and tense meeting; therefore, they could not have gained full appreciation of her methods (Cohn, 1975; Kenny, 1941a; Kenny, 1941b).

Despite the troubles Kenny had convincing all medical practitioners to use her methods in their entirety, she continued to offer demonstrations to physicians, nurses, and physiotherapists in Minneapolis. She was welcomed in locales across North America to demonstrate the benefits of her work. In these efforts, she was aided by partially trained Australian technicians, who had been brought to the United States and later by eight American trainees who were sponsored by a nursing scholarship fund offered by a wealthy American family (Gould, 1995). It was at one of these on-the-road demonstrations that my grandmother encountered the work of Kenny.

Unlike the typical practices for polio care of the day, which required parents to sit back and watch their children being restrained in splints and casts within hospitals, Kenny's methods proposed that parents be engaged in active care of their children in sites outside of hospitals. Thus, with Kenny's methods, there emerged a choice for treatments where there was none before. Her link with parents was a key element of Kenny's media appeal in the North American context.

In 1941, just as the United States was a newcomer in the World War, Kenny was seen as a newcomer in the fight against polio. Heavy coverage of Kenny and her work ensued. In August of 1941, American Weekly circulated that Kenny had a new and "revolutionary" treatment for infantile paralysis and in December of the same year,

Reader's Digest published an article about her (Rogers, 2000[1]; Wilson, 1995). In the press, she was portrayed as an outsider, an independent thinker and pioneer of sorts, appealing to the American sense of ingenuity. Indeed, by 1942, there were moves by the press to position Kenny as a central figure in the fight against polio. On December 31, 1942, Kenny was noted in the Detroit Free Press to be one of five "Women who Made News in '42" (four of the five were involved with the war effort and the fifth was Madam Chiang Kai-Shee, the first lady of China) ("Women", 1942).

Nurses, too, were interested in Kenny's achievements. The American Nurses' Association (ANA) asked Kenny to address 3,000 nurses at the ANA Biennial Convention in Chicago between May 17 and 22 (Kennedy, 1942). She was made an honorary member by the ANA House of delegates on May 18, 1942 (Stimson, 1942a). Julia Stimson, then President of the ANA, noted in a letter to Kenny June 1, 1942: "Comments from many individuals about the program indicate that your contribution was most outstanding from an inspirational and practical point of view" (Stimson, 1942b). Although many scientists rejected Kenny's claims, members of the general public and those working somewhere on the periphery of science, like general nurses of the day, accepted her results with little resistance, just as they had in Australia. Who could deny what was practical and obviously beneficial? Still, Kenny sought legitimacy from the world of "science" proper.

Another Committee Inquiry

Aiming to gain legitimacy in the academic world, Kenny published her second textbook, "The Treatment of Infantile Paralysis in the Acute Stage", in 1941. This same

[1] Naomi Rogers was informed by email on 2001/12/13 that I will reference this work.

text was not edited by Kenny's translators (Cole, Pohl, and Knapp) and it was reportedly difficult to obtain a clear understanding of her work by reading it (Cohn, 1975). Thus, the text was not as useful a tool to legitimize her practices as were her demonstrations and endorsement by experts in the field. One important endorsement came from influential physiotherapist Alice Lou Plastridge, from Warm Springs, Georgia (Cohn, 1975; Gould 1995).

Plastridge's approval was meaningful because it indicated Kenny might convince others at Warm Springs, the epicenter of polio rehabilitation, to adhere to her methods. Indeed, the proposed use of Kenny's methods at Warm Springs and the approval of NFIP funding to run Kenny clinics in Minneapolis were contentious because never before had the NFIP endorsed a technique not proven in its entirety by medical science (Cohn, 1975, p. 147).

To address this issue of legitimization, the "Committee on Research for the Prevention and Treatment of After-Effects", was struck by the NFIP with a goal to render a decision about the stand that the foundation should take in relation to Kenny's methods (Cohn, 1975). This committee, led by Dr. Phillip Lewin, an orthopedist, consisted of members Cole, Knapp, and Henderson, and a sub-committee consisted of Cole, Krusen, and Dr. Irvine McQuarrie from University of Minnesota. Both after-effects committees reported to Basil O'Connor, the president of the NFIP and Dr. Don Gudakunst, Medical Director of the NFIP. In November, 1941, there was hot debate between committee members as to the scientific validity of Kenny's methods. Cole, Knapp and Lewin were convinced of the method's benefits, but others remained skeptical. Resignations occurred, the reasons unstated. On December 3, 1941, the Committee on After-Effects was recalled

(with which members I do not know) and it agreed unanimously on a highly favourable statement:

> It is the opinion of this committee...after a study of a report of the workers at the University of Minnesota, that during the early stage of infantile paralysis, the length of time during which pain, tenderness and spasm are present is greatly reduced, and contractures caused by muscle shortening...are prevented by the Kenny method. (Cohn, 1975, p. 148)

The American Medical Association (AMA) and the NFIP both issued press releases in relation to the committees' findings. O'Connor and Dr. Morris Fishbein, editor of the prestigious "Journal of the AMA" (JAMA), spoke on the radio on a coast-to-coast hookup. The next day the foundation added in news releases that three independent groups of investigators confirmed the benefits of the Kenny method. These confirmations came as a result of experimental investigations that tested the effects of immobilization on animals in the laboratory and a review of current polio cases (Cohn, 1975). To add to the support for Kenny's ideas about immobilization, the presence of spasm in affected muscles was subsequently proven using emg analysis by Swartz and Bouman, who published their findings in the July 18th JAMA, 1942. And a two-year study of Kenny treatments, initiated by the Departments of Physiotherapy and Orthopedic Surgery at the University of Minnesota, yielded results that were consistently supportive of Kenny's strategies.

So legitimate were her ideas, according to Cole, Pohl and Knapp, they co-authored her third textbook, "The Kenny Method of Treatment for Infantile Paralysis", published in 1942 by the NFIP. This text offered a rendering of Kenny's ideas, using *her own* terminology to explain the disease and its treatment. With all of this evidence legitimizing Kenny's work, the NFIP was very willing to collaborate with her, also

publishing a book called, "The Importance of Research", which linked her ideas with emg studies (Kenny, 1945; Kenny, 1946).

As Kenny's work became more accepted, it moved into the mainstream of polio rehabilitation, but it did so with a proviso; its benefits were to be verified by scientific analysis. Accordingly, a "Kenny method" was devised by the NFIP that valorized abandonment of immobilization and the use of hot packs while it marginalized the intricacies of her exercises to gain muscle awareness. The hot packs and mobilization met scientific specifications for effectiveness, whereas the rest of Kenny's regimen remained speculative. Based on the facts, the NFIP devised a Kenny method as though it was an *augmentation* to traditional practices rather than a revolution in polio rehabilitation ideas. Of course, the status of it being an augmentation was not highlighted by the NFIP as they publicized their research and education related to Kenny. However, because Kenny's vision of proper training differed from that of the foundation, the marginalization of her work in medicine soon became public knowledge.

Training in Kenny's Methods

Beginning in 1942, Kenny sought more funding from the NFIP for facilities and programs to teach her concepts about infantile paralysis and her methods of treatment to physicians, nurses and physiotherapists. Her efforts to have the NFIP pay for teaching pushed the foundation into the realm of medical education, which it had not sponsored previously (Paul, 1971). According to the NFIP, from August 1940 to June 1943, Kenny received "whatever financial assistance she requested", via grants to the University of Minnesota (Basil O'Connor, 1944).

Beginning in 1941 at the Minneapolis sites, physicians attended sessions, usually 2 to 7 days in length; nurses attended 6 or 7 days to learn principles of the methods and hot pack techniques; and both nurses and physiotherapists received 2 to 6 months training to learn "muscle re-education" in addition to basic information about Kenny's technique (Larned, 1946). The courses for physicians--tuition and travelling expenses paid for by the NFIP--"involved lectures and demonstrations by Sister Kenny, supplemented by the medical staff of the University [her mediators]" (Larned, 1946). Following attendance at one of these courses, individuals received recognition the way one receives a certificate of participation at some conferences. This certificate of participation appears to have signified, to some, adequate training in Kenny's methods. After all, principles of the "Kenny method" by NFIP standards, could be learned quickly and could be easily modified to meet the needs of health practitioners in different contexts (Kenny Institute Board, n.d.).

The NFIP had a reason to strip Kenny's methods of their "extraneous" elements. The foundation's goal (just like the goal of the Queensland government) was to grant funding to legitimized practices, not to those without scientific merit. There were no compelling scientific reasons to abandon existing rehabilitation programs in favour of Kenny clinics in most sites. Also, the volume of training required was an issue. The education of thousands of healthcare workers in the Kenny method was deemed by the NFIP to be well beyond the scope of the University site: "Realizing that the task of teaching the number of technicians needed to serve the whole country was too great for any one school, we opened other centers for the teaching of the Kenny method..." (National Foundation, 1944, p. 1).

So, in 1942 the NFIP opened up 5 "training facilities" for the Kenny method, besides University of Minnesota: those in California, Georgia (at Warm Springs), Illinois, Indiana, New York and Pennsylvania. By October, 1942, 1,000 healthcare workers had taken the courses at the above sites and more were waiting (National Foundation, 1942). Research about the Kenny method also began to emerge from these facilities, which were funded to a tune of $501,000 by 1944, including costs for scholarships, equipment and salaries for educators ("Fifth Annual Report", 1944).

What became an issue was the education of the facility directors. The directors worked in the field of "physiotherapy" or "physical therapy" and education was offered by those who had some Kenny training. However, none of the educators at the 5 sites were fully qualified "Kenny technicians", in keeping with the designation created in Australia ("Kenny Method Courses", 1942). Kenny sought to develop a proper two-year course for training such technicians in Minneapolis, however she was denied the funds to do so. And, unlike in Minneapolis, the 5 training facilities were completely outside her realm of governance. Frustrated with the impasse she experienced in her negotiations with the foundation, Kenny sought to develop a domain from which to offer her two year course in order to properly train Kenny technicians.

The development of this domain involved the creation of some security for herself. First of all, Kenny sought a regular salary. In 1942, 2 years after her arrival in the United States, Kenny still did not have a regular income, except proceeds from the Sylvia stretcher. The NFIP offered Kenny, as a grantee, money for some personal expenses, but donations from sources other than the NFIP were given directly to the programs she ran (Van Riper, 1948, p. 4). She also sought a well-equipped location from which to

administer and teach her techniques, which was not available to her through the University of Minneapolis programs. A witness to the shortcomings of the programs both at the university and at the General Hospital via an inquiry, the Board of Public Welfare in Minneapolis noted Kenny had little space in which to practice, adding that she "worked seven days a week almost all day, had no office, nor did she have a desk or chair" (Kline, 1946, p. 2). Subsequent funding from the Board of Public Welfare, private donations, and the Exchange Club of Minneapolis, garnered Kenny more money for personal expenses (Kenny, 1946a; Kline, 1946). However most importantly, the funding allowed for the establishment of the Elizabeth Kenny Institute in December 1942, as the only site for full Kenny technician training that was not under the administrative influence of the NFIP.

Elizabeth Kenny Institute and the "Original" Kenny Methods

The Institute became a place for Kenny to continue the development of her treatments in the ways she envisioned, while it also sponsored investigation into the effects of her methods by researchers who acknowledged the importance of her ideas, if not exercising some healthy scientific skepticism about them. The Institute, with a curriculum developed by Kenny in conjunction with Cole, Pohl, Knapp and others (General Outline, n.d.; Kenny Institute Board, n.d.), became a realm of research and education. Unlike the University of Minnesota sites, it was isolated from the mainstream teaching of the Kenny method. This isolation became evident to Kenny because of some moves made on the part of the NFIP.

In June 1942, at the AMA convention, the NFIP exhibited the Kenny method, using as presenters 2 Kenny technicians, rather than Kenny herself. Also, in early 1943,

Kenny was asked by President Roosevelt to go to Argentina to present her method as though it was an augmentation to other medical strategies (Kenny, n.d. b). Kenny saw these moves by the NFIP as an act of shunning, diminishing her expertise and watering down her concepts. In an effort to resist the watering down of her work, Kenny began to publicly declare a distinction between her "original" method and the Kenny method taught by the NFIP, finally settling on the development of a "newer science", "dermo-neuro-muscular therapy". Promoting her original concept, Kenny began in 1943 to create demonstration films which provided clinical evidence of the original method's effectiveness, hence the truthfulness of her claims (The Kenny Technician, n.d., p. 33; Wilson, 1995). The NFIP, too, produced films about the Kenny method, in the format that they promoted. Shoring up her legitimacy in isolation from the NFIP (although she was portrayed as a partner of the NFIP) in 1943, Kenny received an honorary Doctorate of Science by Rochester University, a honorary Masters of Science from New York University, and a Doctorate of Humane Letters by Rutgers University, the latter being the alma mater of the two scientists, Schwartz and Bouman, who confirmed the presence of spasm in affected muscles of those with polio (Wilson, 1995).

One might think the legitimacy Kenny garnered as a figurehead of novel approaches in polio rehabilitation would grant her an inroad with the NFIP. Kenny expressed contentment related to her relationship with the NFIP in her first autobiography, co-written by Martha Ostenso, "And They Shall Walk," published in September, 1943. Certainly, she sought continuing connection with the NFIP, requesting $840,000--eight times the operating budget for the University-based programs--for the Kenny Institute (Paul, 1971, p. 344). However, her isolation from the foundation

continued to grow. Not only was she refused funding for the Institute, Kenny's personal allowance for work with the University of Minneapolis was terminated. She charged that the NFIP cut her funding (Kenny, n.d., p. 3; Van Riper, 1948). But the NFIP retorted Kenny made a request to cut her personal allowance as an act of righteousness because of an alleged breach of contract on the part of the NFIP related to travel and living expenses for Mary Kenny and another technician while the two were in Argentina promoting Kenny's techniques (O' Connor, 1944). At any rate, the crunch for funding did not deter Kenny; it was instead the platform for arguments used in fund raising separate from the NFIP.

The Kenny Foundation

Seeing the success of the March of Dimes, in 1943 Kenny and her colleagues initiated the Kenny Foundation, which engaged in fund-raising techniques similar to those started by the NFIP, such as an annual dinner and campaigns in the press that highlighted polio survivors, receiving money from individuals and organizations (Kline, 1946). The Kenny Foundation, like the NFIP, funded a broad range of investigations into the treatment and prevention of polio, including the fields of virology and epidemiology (Sister Elizabeth Kenny Institute, n.d.). Since the Kenny Foundation required funding other than that from the March of Dimes, Kenny used the NFIP's refusal to fund the Kenny's Institute, while funding the Kenny method training facilities, as a key element her 1944 media blitz (which included, a la her previous tactics in Australia, a threat to leave the Kenny Institute and the United States).

Whistle Blowing

In her discussions with the press, Kenny "blew the whistle" on the NFIP, arguing that the public should know how their money was being spent. Through the March of Dimes, millions of dollars were given every year to the NFIP (on average, 25 million yearly between 1938 and 1962, 59% on direct patient services, 8% on educational programs, 11% on research, and *13% on public relations*) (Paul, 1971, p. 312). [emphasis mine] She reflected that most contributors to the March of Dimes were duped into thinking a portion of those funds went directly to Sister Kenny and her Institute for the funds went instead to research and training associated with the University of Minnesota and with the Kenny training facilities, the latter completely outside the realm of her governance. Kenny repeated this same message in interview after interview, expressed her concern about others teaching the method, using her name but not her whole complement of strategies. This move by Kenny and her colleagues raised the ire of NFIP officials, who responded in defense of their decisions: they were helping Kenny to promote a version of her method that was affordable *and* scientifically verifiable, unlike many of her strategies ("Fifth Annual Report", 1944; O'Connor, 1944). What is most ironic is that in January of 1943, before things really heated up, Kenny was the Guest of Honour at the NFIP President's Ball (Wilson, 1995)!

Still Another Committee Inquiry

Kenny's whistle blowing narrowed her options to gain legitimacy with the public, since the NFIP was advertised as a source of support for her until the 1944 campaign. So, she sought other means to validate her methods. Like an echo of the Australian experience, Kenny requested a formal investigation occur regarding the value of her

methods. However, this time around, she asked that her judges not be medical researchers. Early in 1945, Kenny made a request, spearheaded by Representative Donald L. O'Toole, to establish a United States Congressional Committee to investigate "organized opposition" by the AMA and the NFIP to her concepts and treatments ("Sister Kenny Demands", 1945; "Sister Kenny OKs", 1945).

She offered an example of this organized opposition. In the June 1944 JAMA, a report of Kenny's methods was published by a group of researchers, indicating that Miss Kenny's claim to an 80% recovery rate from paralysis compared with the 13% rate through orthodox treatments was "a deliberate misinterpretation of the effects of the treatment by other methods" (Ghormley, R., Compere, E., Dickson, J., Funsten, R., Key, J., McCarroll, H. et al., 1944, p. 466). Kenny noted this report and a subsequent NFIP pamphlet based on its contents were untrue and defamatory ("Sister Kenny's Mission", 1945). She also alluded that this conspiracy against her, instituted by the NFIP, was influenced by those close to President Roosevelt (remember, he was the founder of the NFIP) (Finney, 1945). Discussion about the committee proposal was delayed due to an issue with the rules committee and a broad scale inquiry did not take place (Finney, 1945).

Curiously, three years after the death of Roosevelt, May 25, 1948, the issue resumed after Kenny wrote the chairman of the House Committee on Interstate and Foreign Commerce, requesting a meeting with its members to state her case. She made testimonials on May 14 and May 19, 1948. In response, a written statement prepared by Dr. Hart E. Van Riper, Medical Director of the NFIP, was submitted to the Committee on June 2, 1948. Kenny, he said, got plenty of recognition and funds too, adding that she

was not open to modifications of her practices, although the modifications were a sign of progress (Van Riper, 1948).

During this period, Kenny threatened to end her work at the Kenny Institute, going so far as to submit her resignation to the board ("Kenny Resignation Refused by Board", 1945). She also threatened to leave the country, as she had in Australia. Indeed, "Miss Kenny on numerous occasions in the past told Mayor Kline, members of the board and newspaper reporters that she had decided to leave this country" ("Sister Kenny Delays", 1945, p. 9). The first threat of resignation and abandonment of the USA came in 1944 in correspondence to Kenny's complaint that she could not raise $150,000 necessary to operate the Kenny Institute (a far cry from the $840,000 Paul said she requested!) ("Must Sister Kenny Leave?", 1944; Armstrong, 1944). This threat to resign and the subsequent ones were refused by the Kenny Institute board and Kenny was convinced to stay in Minneapolis by local politicians, granting funds, and supporters from all walks of life, including those in medicine who subscribed to her cause ("Sister Kenny Delays", 1945). In addition, "a certain number of patients' fees were charged" to those attending her institute to meet her requirements for operating funds (Kenny, 1944a). Ironically, in 1945, a tragedy required Kenny to leave the U.S. anyway.

On April 23, 1945, she received a telegram informing her that the fiance of Mary Stewart Kenny, Flight Lieutenant Peter Sinclair, was deceased. Regrettably, Mary was on her way to England to be married to Peter, so Kenny travelled to England to console her. There were other passages as well. Later in 1945, Kenny returned to Australia, where she found only two Kenny clinics in operation, one in Brisbane and the other in Sydney (Wilson, 1995). In her absence from Australia, it appears, there was not a will to maintain

the institutional structures advocating for her practices separate from those in the mainstream (Kenny, 1946a; Wilson, 1995). Kenny returned to the United States in 1946. While the World War was over, the fight against polio was still raged on.

An Epidemic, a Film, and Another Campaign

In 1946, the 66-year-old Kenny was on site in the Minneapolis clinics to supervise care for the worst epidemic in the history of Minnesota, where over two thousand cases had been reported in the city of Minneapolis alone (Kenny, 1947a; Kenny, 1947b). At the Institute, the "Kenny Technician Training Program" remained intact and she took a direct role in development of its two year curriculum (Training Course, n.d.).

September 1946, marked the release of the RKO film "Sister Kenny", starring Rosalind Russell. It was a success in the U.S. and was met with good reviews but it did not do as well at the box office as expected (Segel, 2001). One editor of a Northwest United States newspaper questioned facts about polio treatment because they appeared distorted. Namely, the film implied medical practitioners outright refused to use some of Kenny's techniques, whereas most *did* incorporate them in part or in whole. Secondly, the film implied all of Kenny's charges got up and walked, whereas those treated by orthodox means did not ("'Sister Kenny' is Judged", 1946). This portrayal was obviously inaccurate, the same editor suggested, for her success rates matched those of the orthodox treatments: 16 percent remained severely paralyzed and 6 percent died.[vii] Interestingly, when the film reached Australia in 1947, it was panned by critics there (Wilson, 1995). The last Australian Kenny Clinic, located at Royal North Shore Hospital in Sydney, closed shortly afterward (Wilson, 1995).

In other parts of the world, though, Kenny's work was held in esteem. In 1947, she engaged in an international lecture tour which included stops in Eastern European countries and Russia. She even had a private audience with Pope Pius XII (Kenny, 1947). And in 1948 new Kenny clinics opened in the North Eastern United States (Wilson, 1995). Kenny continued her media attack on her detractors, generating headlines such as, "Polio Foundation Fights Her Method, Sister Kenny Says", with a byline, "Contends Thousands are Denied Cures as Result of Attitude" ("Polio Foundation Fights", 1948). This round of attacks appeared to have been spurned by an incident in July of 1948, when Kenny was refused a place on the agenda of the International Poliomyelitis Conference, Manhattan, New York because she was not a "grantee" of the NFIP ("Polio Foundation Fights", 1948, p. 20). The conference Advisory Committee also declined an application by Marvin Kline, Executive Director of the Kenny Institute, noting that his proposal was not "scientific" enough. The Committee sought: "actual scientific evidence" in "manuscript form" rather than statements based "personal opinion" (Rogers, 2000). Kenny brought this complaint to her House Committee on Interstate and Foreign Commerce hearings in 1948, but these hearings did not grant her status as a "scientific participant". Instead, the American Newspaper guild issued her a press card and she attended the conference in the role of "reporter" (Rogers, 2000).

Once again, Kenny was reminded that she was not accepted into the mainstream of polio research, but this did not stop investigations into her concept of the disease. Pohl published an article related to the peripheral aspects of the disease in 1947, and European countries like Belgium and Spain continued work on notions of polio being a systemic disease. Still, Kenny could not seem to garner the same media fervor that she had

between 1942 and 1944. This appears to be related in part to the attitude taken by the Kenny Institute Board of Directors, who did not directly confront statements made about Kenny's work in public arenas (Kenny Institute Board, n.d.). This angered Kenny because she interpreted many remarks made in scientific reviews of her work as defamatory (Kenny, n.d.). The Institute's board, some of its members grantees of the NFIP at the university site, were not comfortable villainizing the NFIP the way Kenny had.

Retirement?

In 1949, Kenny retired from the Sister Kenny Foundation and Dr. E.J. Heunekens became medical administrator at the Institute. Kenny subsequently returned to a small town in Queensland, Toowoomba, where she stayed until the next year. In January of 1950, she travelled to North America and Europe, attending international polio conferences as an official representative of the Australian Government (Wilson, 1995), getting around the issue of being a scientist. She was also granted a visa by a joint Congressional Committee of the United States which offered free passage across the United States borders, having been told earlier that her work in the United States required a visa (Cohn, 1975; Wilson, 1995).

Kenny was soon unable to travel due to the symptoms of Parkinson's disease, diagnosed in 1951, however others carried on her work in its many forms in the United States. In 1950, for example, a new Kenny clinic opened in Los Angeles (Wilson, 1995). Despite her physical limitations, Kenny was not derailed from her goals. While back in Australia, she attempted to revive the movement supporting her original practices. In August, 1951, she initiated a committee for a Toowoomba branch of the "Elizabeth Kenny Foundation International" (Wilson, 1995). She also petitioned a branch of the

Labour Women's Central Organizing Committee and an Infantile Paralysis Welfare Association to establish new clinics in New South Wales and South Australia (Wilson, 1995). As she attempted to revive her movement in Australia, struggling with the system and with Parkinson's symptoms, Kenny was voted by a Gallup Poll as "American's most admired woman" (Rogers, 2000; Wilson, 1995, p. 135).

Final Battle

In 1952, Kenny authored a second autobiography (published posthumously in 1955) entitled "My Battle and Victory", for what was there to see from all of her efforts but victory? On November 30th, while living near Toowoomba, she died of a stroke. Some reports say she was 66 years-old, but was actually 72 (Kenny falsified her age to reporters upon arriving in North America in 1940) (Johnson, 1952). Kenny was buried in the Nobby cemetery next to her mother's grave. The service included tributes by members of the American Consul and the Country Women's Association while local schoolchildren provided the guard of honor (Wilson, 1995).

Progress, War, and Practice

In the third chapter, I present an account of Sister Kenny's work and struggles that is structured by time and relationships between individuals and groups. My "figuring" of the discursive field thus sets as focal points time increments and people within prescribed positions such as "nurse", "physician", "politician", and "patient". I position Sister Elizabeth Kenny in opposition to members of the medical orthodoxy based on the information I have from other historical narratives, adding into the narrative, fragments and chronicles in the form of letters, news clippings, and reports. In this chapter and the next, I will continue with the binary relation between Kenny and the orthodoxy, but the structure of the story will be quite different. I will not choose the same figures as focal points and I will not follow a linear path portraying Kenny's life and work. Instead, I will focus on the poliobody, which I develop as a central figure set in relation to other figures in the discursive field.

Specifically, I will focus on how the poliobody as an ethical subject, in a Foucauldian sense, enters into the games of truth in medical discourse and in discourse related to the domain in which Kenny practices. To be ethical in Foucault's estimation, one has to be free to make a choice--a choice which might be considered right or wrong depending on the truth games in a given discourse (Foucault, 1984/1987; Foucault, 1984/1988). Freedom in this sense depends upon knowledge and the validity given to its many forms within discourse. As I have previously noted, there are, in the poliobody field, knowledges of the body that are seen to be at odds with one another--that of Kenny and that of orthodox medicine--but these knowledges are not grounded purely in ideology. They are instead knowledges directly related to practices in healthcare, within the contexts of the clinic, whether the practices be in the clinic, the home, or the laboratory. My interest in these practices resides in the ways in which I can link them with forms of discipline. In this chapter, I consider the conditions in discourse that allow

for the emergence of different poliobodies, as referentials, keeping in mind that the body will never be fully captured because it is, a body as living flesh, sublime.

The poliobody experiences freedom within the context of rehabilitation, but it does so in very different ways depending on the discursive context in which it is constituted. In medical science, I suggest the poliobody is like a battlefield freed from its devastation by medical technology. Whereas, in the domain Kenny practices from, I propose, the poliobody is a site of hope and unlimited capacity freed from its limitations by Kenny's form of technology. I create a contrast here between the poliobody in medicine and the poliobody in Kenny's domain that is not cleanly delimited in narratives about Kenny and her work. I make this contrast to shape the figures I use in my story and to explain their relation to one another. In other words, I am engaging in the processes of discernment, figuration and emplotment necessary to create my narrative.

In my narrative, I examine the conditions in which the medicalized poliobody emerges in discourse, a body eventually problematized by Kenny's practices. I suggest that in medical narratives there is a war waged against the disease, and in this war the poliovirus is made out to be the enemy. As an enemy, it becomes a scapegoat for many problems and needs in the war against the disease it causes. For example, the poliovirus's damage to the nervous system is said to cause the problem of immobility, which has attached to it certain needs, such as the need to immobilize affected parts of the body to prevent deformity. To immobilize the body, special skills are required of healthcare providers.

The medicalized poliobody is thus figured in narratives as a battlefield in which the war against the poliovirus takes place. I then note how Kenny's poliobody emerges in discourse, as something very like the medicalized poliobody and yet depicted as something very different. Kenny's poliobody seems to be freed from the disciplining effects of medicine and yet it evolves within truth games directly related to the

medicalized poliobody. I submit that in narratives related to the Kenny's methods, because she meets up with resistance and rejection due to not following the rules of truth games in medicine, a war is not fought against the poliovirus. Rather, a war is fought against a different enemy: the medical orthodoxy. I hope to point out that in Kenny's resistances to the medicalized poliobody, there is a questioning of truth games in medicine that might constitute practices of freedom, in a Foucauldian sense.

The War

By the time Kenny engages in her work on poliobodies, starting in 1911, the poliobody in medicine has been well developed as an object of knowledge. It has been examined in the clinic; it has been represented in the laboratory by animals; it has been mapped out by theorists; it has been confined, re-constructed, immobilized and mobilized initially in the name of fighting the problem of paralysis and later in the name of fighting the poliovirus. Indeed, Kenny enters the poliobody discursive field during a "war" against polio that lasts beyond the time of her death.

Although war metaphors are used prior to polio in illness care, in the case of polio, conditions are just right for the war metaphors to become very effective in mobilizing humans. This level of mobilization is understandable, given the social context and the way that war metaphors were used in polio discourse. The Crimean War started in 1853, during a period of public health awareness that had the army as an incubator for many of its ideas. The need to be vigilant about cleanliness and invasion of the microbe was heightened by Louis Pasteur and his colleagues in the 1880's. Louis Pasteur, the originator of "microbiology", was able to convince physicians, public health officials, and the general public in France and later internationally, of the importance that laboratory research could bring to the study, control, and cure of diseases. Pasteur and his colleagues took up the strategy of putting the microbe at the center of their disease analysis (Latour, 1988). Along with the heightened awareness about health and its link with the microbe,

World War I began in 1914, just as polio epidemics were on the rise in the Western World. The New York epidemic of 1916 was publicized and much research was conducted into how the poliovirus interacted with the body (Rogers, 1992). World War II, between 1939 and 1945, saw a further advance in the invasion of the poliovirus, despite the techniques employed to search for its secrets, its life span, likes and dislikes, its preferred mode of operation, and its weaknesses.

In 1941, in Canada, there were 1881 cases of the disease, but there was panic about polio as though it might have struck hundreds of thousands (Rutty, 1996). By the mid-nineteen fifty's, the Cold War was on with the Eastern block, just at a time when there were the largest epidemics of polio in North America. In 1953, at the height of its impact for example, there were 8,878 cases of polio in Canada , an incidence rate of approximately 62:100,000 people (Rutty, 1996). In comparison, the incidence rate of tuberculosis in Canada was also 62:100,000 the same year (tbcan, 1997). Still, the response to the polio outbreaks and epidemics bordered on hysteria, while tuberculosis was rarely discussed in the news. This intense alarm, has been related to the publicity about the disease, drummed up by the NFIP (Paul, 1971; Rutty, 1995). I agree that the NFIP's public relations department, having spent more on publicity than on research (Paul, 1971, p. 312), put polio front and center in the minds of millions, but such awareness might not have caused hysteria if it were not for the ways in which polio was characterized as a figure in medical discourse.

I suggest that the hysteria in North American and Australian sites is related to the ways that the poliovirus is characterized in medical narratives. It is an entity that is mysterious and defiant, and it attacks a population in society thought to be most

vulnerable and most full of promise for productive lives: children. As a mysterious enemy attacking children, the poliovirus becomes a scapegoat for polio paralysis, without those who construct such accounts of it realizing that they are scapegoating it. This scapegoating is important because it occurs through a series of moves on the part of humans; first to *find* the virus through scientific inquiry and then to construct a *causal link* between the poliovirus and the types of paralysis it is said to produce. In this way, the poliovirus is "singled out" as the cause for all polio-related paralysis, excluding consideration of iatrogenic effects on the bodies of polio survivors in the context of healthcare, for the moves of healthcare workers are said to counter the virus's effects. Hence, the narratives of war and progress related to the poliovirus's attack on the poliobody, as a battlefield, represent narrative closures. Kenny represents a major problem when her techniques enter the discourse as she disrupts the clean construction of responsibility developed in medical narratives.

Stories about the war against the wild poliovirus have a form of emplotment that is romantic in that they refer to a victory of a hero over the trials she is exposed to in the world of experience (White, 1973). Within these stories, different actants take on the role of hero. The physician can employ a particular technique, like orthopedic surgery or the use of the iron lung, to correct a deformity or save a life. The biologist in the laboratory can conquer the mysteries set forth by a wild microbe via the use of equipment and the experimental virus. And the patient, under the guidance of the physician, nurse, and physiotherapist, becomes a hero when he travails over the pain, loss of function, and loss of control set upon him by the illness. These heroes operate within in an ethical domain

in the clinic, the hospital, and the home which differs from that of civil society because their actions are made sense of within the context of war.

In the context of the war against the poliovirus, the rules of engagement--the statements that indicate how and when fighting occurs within the context of war--are in operation. Within biosciences, the poliovirus is seen to do unspeakable things to humans in its invasion and appropriation of the body. Humans too do unspeakable things to other humans and to non-human creatures in their wars against polio. Consider what my aunt's doctor did to her foot. Would this not be assault in any other jurisdiction? My aunt's doctor and most physicians and healthcare workers in Western European and North American contexts, were following the rules of engagement in their battle against the wild poliovirus. Ironically, the rules of engagement re-constitute acts that endanger the rights to autonomy and freedom from self harm said to be so important in medical ethics. Instead of being thought of as questionable, immobilization and re-construction of bodies are considered to be completely necessary acts in the line of duty.

The duty to defend against the poliovirus and its effects were also felt by the general public. Individuals obeyed public health measures because they understood theories of contamination; they followed the guidance of the physician the way that troops might follow orders from a superior because they trusted the physician's judgement and his source of truth about the body; they freely gave of their time and they donated unprecedented amounts of money to fund institutions offering acute treatment, rehabilitation and research related to the disease (Rutty, 1995). In other words, the faith individuals had in medical knowledge of the poliobody allowed wide-spread agreement and cooperation with health interventions that supported the loss of autonomy and caused

physical harm. This faith in the progress of medical science is reflected in the following report on poliomyelitis published by the Hennepin County Medical Society of Minneapolis, Minnesota in January 1941:

> Poliomyelitis usually is considered an affliction of modern times having become prominent in the United States only during the last quarter century...As the years have passed more and more interest has been centered upon it. This has not been confined entirely to the profession; the public now is quite aroused to this dreaded enemy of childhood...In spite of the unceasing labours of science, the affictions [*sic*] remains one of the most baffling problems confronting us. While there must be no slackening of the effort to find the cause and the means of preventing the disease, the attempt to relieve those affected must also go steadily onward. Much has been accomplished in ameliorating the paralysis by physiotherapeutic means. Also there is no finer demonstration of the advance of surgical skill than in the re-construction of the paralytic child. (Hennepin County Medical Society, 1941)

The narratives of medical science construct the poliobody as though it is a battlefield and, like Dresden and its decimation after being bombed, the poliobody then requires the technology of science to be free from paralysis and to be eventually re-constructed.

Here, I will take a step back to discuss the discursive conditions in which the poliobody arises as a battlefield. I point out two main figures in the field: the paralyzed body and the poliovirus. Both figures are engaging within networks of association in the poliobody field; they are used to constitute the poliobody. Also, they both serve as a rationalization for particular practices in healthcare, while being defined themselves in relation to the poliobody as a referential.

The Paralyzed Poliobody

Paralysis related to polio infection is thought to have been extremely rare during ancient times and remained so until the late eighteenth century (Paul, 1971). Individual medical practitioners attempted to manage the symptoms of the illness we now call

poliomyelitis that presented at the surface of the body on a local basis, depending on personal and cultural interpretation of phenomena and patient response. With the diversity in representation of the symptoms, there were no moves for normalization; there were no particular practice guidelines in relation to the symptoms, for they were not noted to constitute a "disease" the way that wide-spread symptoms like the plague were, and there were no regulatory mechanisms for physicians and surgeons in relation to particular diseases (Watts, 1997). However, the normalization of paralysis and its link with the poliobody began to take shape during an era of disease classification in Western medicine (Paul, 1971).

By the late seventeen hundreds, disease classification emerged as significant in medical discourses, for the human body was then being seen as an object of Nature, requiring a taxonomy in illness and health like those in the plant and animals kingdoms. This move to theorize disease led to a classification of illness that did not depend solely on the local event at the surface of the body (Bunney, 1996). Rather, the classification required the development of foundational ideas about the body in moves stressing conformity in the ways that physicians attached names to particular phenomena, independent of temporal and cultural context, expecting that with the alignment in disease classification there would be alignment in practices meant to respond to the disease.

In the process of classifying symptoms of the disease we now call polio, paralysis became the first unifying theme. This figuring of the poliobody as a paralyzed body is evident in the names offered to the disease. In 1789, a pediatrician from London, Michael Underwood, named the disease, "Debility of the Lower Extremities" and in 1840, Jacob

von Heine named it, "*Lahmungszustande der unteren Extremitaten*", roughly translated, "Paralysis of the Lower Extremities" (Paul, 1971, p. 5).

The incidence of paralysis in polio remained rare, reflecting notions that the disease was rare, a designation that was soon to change partly because of moves made by members of a new discipline public health, a field that conceptually linked living and working environments with disease in humans and non-humans. Public health as a field of practice was originally performed by public servants known as "Sanitarians" in England and "Hygienists" in France, and involved practices associated with sanitation, such as the checking of water and food for purity, the containment of garbage and sewage, which sometimes required the displacement of people from their homes, and the isolation of diseased bodies in homes or "sanitariums" (Watts, 1997). In an ironic twist, moves by public health officials set the stage for modern conceptions of polio paralysis because they interrupted the associations between humans and the poliovirus.

The poliovirus was likely endemic (common) in most places in the world for centuries. It lived not in food, nor in dust, nor in garbage, but in water contaminated by feces and it was also found in mothers' milk. Indeed, investigators now speculate the virus was in most human bodies at one point or another (Paul, 1971). Under the conditions in which it was endemic, polio was more like a moderate case of the flu than a monstrous killer. The usual symptoms of polio without paralysis were tender muscles, sore throat, slight fever, tiredness, headache, stiff neck, constipation, or diarrhea and vomiting.

Although large numbers of the live virus in areas of the brain and spinal cord did paralyze and kill, paralysis and death rarely occurred because repeated contact and

experience with the virus allowed the body to have naturally acquired immunity, rendering it able to limit the number of virus particles growing in it. Due to public health measures by the late nineteenth century, escalating in the early to mid-twentieth century, which brought cleaner water and better sewage treatment, there were huge populations in Europe and North America who had never been exposed to the poliovirus and thus had no natural immunity to its effects (Paul, 1971). Without natural immunity, individuals were more likely to become paralyzed.

With the increase incidence of paralysis, reports about polio were catapulted from the disease classification texts and medical journals of the time into the popular press. Polio became known as a "new" and "virulent" disease (Rogers, 1992) in accounts that did not yet consider the iatrogenic effects of public health moves, nor the fact that the habits of the poliovirus had likely not changed very much over centuries.

Just as the weakening of the immune system by public health practices created the conditions for an increased incidence of paralytic polio, the site of infection causing that same paralysis was in the process of being constructed in discourse. Beginning in the 1700's, moves were being made by scientists inside and outside of medicine to examine the microscopic structures and processes of the body in health and disease. Inside medicine, emphasis on microscopic events in the body led to a reconceptualization of the body's boundaries. In the case of the poliobody, clinical perceptions attained at its surface were no longer to be trusted a priori, for there were structures and processes existing at a microscopic level affecting its signs and symptoms.

Beyond a look inside the surface of the human, there were also moves to represent microscopic events of humans in the bodies of non-humans, like mice, rats, guinea pigs

and monkeys (Latour, 1988). The poliobody hence was not just a human body. Results from laboratory experiments became necessary to *know* the poliobody effectively and the statistically verifiable truth about the poliobody became accessible only to those who had particular expertise in understanding the link between the body's constituents and responses at both the macroscopic and microscopic levels. Modern biologists and physicians were thought to have such expertise. Advances were said to be made in understanding the disease once the site for its cause--damage to the spinal cord--was located.

Jean-Martin Charcot, a famous French neurologist, called the disease in 1872: *Tephromyelitis anterior acuta parenchymatose*, reflecting his understanding that inflammation resulting from acute infection caused damage and paralysis to nerve cells in the spinal cord (an understanding that was thought to be the cause of paralysis for decades) (Paul, 1971, p. 5). And Adolph Kussmaul, circa 1874, used the term *poliomyelitis anterior acuta* for the disease (Paul, 1971, p. 5), reflecting the location of lesions within the gray matter of brain or spinal cord causing inflammation (myelitis), at the back of the cord (anterior), acutely (acuta).

With the moves toward understanding microscopic relations, the site for pathology in polio, ground zero so to speak, had been taken away from the surface of the body and had been placed in the CNS.[viii] The question remained as to what caused the pathology and, given the influence of Louis Pasteur on modern medicine (Latour, 1988), most researchers thought that a microscopic invader was the culprit. Indeed, by December 1908, a Viennese pathologist named Karl Landsteiner "discovered" it.

Landsteiner presented to a medical meeting in Vienna the findings of experiments he had completed with his assistant, Edwin Popper. His experiments replicated in a controlled environment polio symptoms in monkeys, who were injected with a bacteria-free material collected from the spinal cord of a nine year old boy who succumbed to the disease.[ix] One of the monkeys died, and a second showed "complete flaccid paralysis of both legs" (Paul, 1971, p. 100-101). No conclusive connections were made, though, until examination of the cells in the spinal cord under the microscope. The spinal cords of the monkeys looked like those of deceased humans with the disease. This was a breakthrough. Although the polio virus could not be seen directly (it is so small it can only be seen with the aid of an electron microscope, invented decades later), its effects could be measured, conveyed by inscription, and replicated. After many successful repeats of the experiment, in late 1909, the existence of the "poliomyelitis virus" (later poliovirus) and its relation to spinal cord damage was accepted as a "fact" in the medical world (Paul, 1971). The discovery of this relation becomes the second condition in discourse that allows for the development of the poliobody as a battlefield in the discourses of modern medicine.

From the time the poliovirus is discovered to be attacking the CNS, it is considered a main figure in the truth games of medical science in the poliobody field. In my narrative, I portray the poliovirus as "wild" or alternatively "experimental". The wild poliovirus is the contagion that breaches the surface of the poliobody to invade the CNS, rendering the poliobody a battleground and a site of devastation. As a site of devastation, there is an understanding that the body has failed to protect itself from the invasion of the

wild poliovirus. Researchers explore why the body fails to protect itself via experimental polio, or polio infection created in the laboratory.

The experimental poliovirus is the poliovirus that is controlled and manipulated in the laboratory, so that it is a docile and useful ally in the fight against the disease. We read most about experimental polio when learning about the development of the polio vaccines (Paul, 1971) and I will talk a bit about the vaccines. But in the context of this paper, I want mostly to show how much effort in medicine went into "discovering" the constituents of the poliobody in relation to the wild poliovirus as an enemy, and how little went into looking at how the body is paralyzed outside of the relation between poliovirus and the CNS.

Experimental poliovirus was not easy to create because the wild poliovirus did not take well to life in the laboratory. It did not grow easily in mediums, the way bacteria did, because it depended on the life of other cells for its replication. Not only did it need the life of other cells, the virus actually became part of the genetic machine of the cells it entered (Oldstone, 1998). Human researchers thus worked diligently to create an environment in which this genetic incorporation could occur. In vitro tissue cultures were initially largely unsuccessful as sites of inscription about the life and habits of the wild poliovirus. Hence the monkey, as poliobody, became a site of inscription to confirm the presence of the poliovirus as a causal agent for paralysis in experiments. Yet, there was no conclusive evidence about the failures of the poliobody causing the disease in the first place. This conclusive evidence came in the late 1940's when tissue cultures were developed to not only sustain the poliovirus and its replication in vitro, but to represent an important constituent of the poliobody: the antibody (Paul, 1971). Those who had

succumbed to the invasion of the wild poliovirus did not have sufficient antibodies to fight the infection, and so started a race to develop a vaccine that would help generate antibodies, arming the body against the wild poliovirus.

There was not just one poliovirus to fight against, however. There were over two hundred fifty strains noted by scientists in different temporal and geographical sites. These strains did not seem important to most researchers until the poliobody's antibodies were discovered, creating possibilities that each of the strains could have different effects on the body. Subsequently, 196 strains of the wild poliovirus were classified, and in 1951 a NFIP-sponsored committee determined the 3 types of "true poliovirus" we still use today (Paul, 1971, p. 234). Each type was assigned strains of the wild poliovirus that were thought to have similar effects on the body at cellular and sub-cellular levels. With the types secure, it was thought more possible to sustain an alliance amongst researchers in the search for a polyvalent vaccine (one that could protect against all strains), for they were all fighting against the same complex enemy and they were considering the same body that had the potential for protection from the enemy via its antibodies.

The body the researchers considered was one that was paralyzed by the poliovirus's invasion on the CNS. This body, as a poliobody, is a site that has lost the battle against the virus, but it has not lost all possibilities for recovery. Instead, it becomes a site of re-construction via the technology of medical science, reconstruction that is said to bring freedom to the polio survivor.

Re-construction and its Freedoms

The narratives of progress and war in truth games about the poliobody convinced health practitioners and members of the public that the wild poliovirus decimated the

poliobody's ability to move its affected parts. Hence, the poliobody needed to be repaired, and re-constructed as a useful *being* in society. The type of freedom promised by re-construction of the poliobody in orthodox medicine was freedom from abnormality. There was a lot at stake in maintaining normalcy; failures of the rehabilitation process in orthodox medicine were seen to be "cripples", marginalized in everyday society (Keesing-Styles, 1992). The archetypal example of this need for complete rehabilitation is President Roosevelt who, as I have mentioned, was portrayed as an able-bodied man thanks to his participation in rehabilitation. Freedom from the specter of disability was gained through processes that required great patience, periods of physical confinement, sometimes surgery and mutilation of body parts, as well as will power.

Since the viral attack rendered the CNS very fragile, it was advised that fever was to be avoided and the body was to be moved as little as possible, for movement was thought to cause more damage to nerves and muscles (Vulpius, 1912). There was little to do for the pain except offer analgesics, in doses that did cause significant CNS depression (Black, 1996). While waiting for the acute phase to pass, it was thought there was a risk for deformity to occur. Hence, the focus for orthodox medical care was initially to prevent the severity of deformity by positioning and by the application of instruments, splints and later casts, to the affected areas. These attempts were thought to be effective for significant numbers of people, although an accurate count was very difficult to make due to the challenges of monitoring the disease and its effects in various clinical settings. Spontaneous, or "natural recovery" (in up to 25% without treatment) was also thought to occur within two to four years (Harry, 1938). However, the importance of it faded as advances in technology promoted early intervention; "Since most cases are now

diagnosed and treated early, the spontaneous 'recovery period' is of little importance compared with the period of improvement under muscle re-education" (Harry, 1938, p. 165). In those who failed to appear "normal" after initial attempts, the focus was to re-construct the body using orthopedic procedures such as manual stretching and surgery. To discuss this, I refer to a text published before Kenny's ideas enter medical discourse:

> **"Redressment"** is the first method at our disposal. It may be effected slowly by means of weight-extension, and in many of the recent and less severe cases it succeeds admirably. **Forcible correction** is quicker and more certain. Deep anaesthesia is employed to relax the shortened muscles. Either manual force or a special apparatus may be employed, and the stretching must be slowly and carefully carried out, so as to overcome the shortening of all the soft parts, from the skin right down to the joint capsule. The process must be continued until the limb is straight, the joint at least at the mid-position, and the shortened structures have lost all their elastic resistance. It is only when this has been done that the corrected position can be maintained be means of bandages and splints, and recurrence prevented. A firm bandage insures success during the next few weeks. (Vulpius 1912, p. 48)

With orthopedic measures, the "normal" shape was engineered through surgery, and in order to maintain this possibility for normalcy implements were placed on the outside of the body to hold muscle groups in positions, which offered the best chances for balanced functioning. Limbs were placed at various angles, perpendicular to the body or bent in ways that are very uncomfortable and constrain movement. Also in different stages and forms of the disease, corsets, moulds, and braces were used to capture the normal shape of the body, hiding deformity once clothes were placed over the implements (Vulpius, 1912; see figures 1 and 2 in Appendix D).

In acute stages for all forms of the disease, healthcare providers were very active; they took responsibility for fighting the deformity caused by the virus's attack and they protected the body from the five percent risk of death (Paul, 1971). A greater number of

individuals with bulbar and polioencephalitis succumbed to the disease, however, the iron lung, or respirator, which engaged more healthcare workers than any other orthodox treatment, was a technological advance that allowed for the best possible chances for survival in patients. It was thought that although these practices to prevent deformity could begin early on, the fear of significant deformity was not alleviated in convalescent and chronic phases of the disease, for the poliovirus could cause problems for years after the acute attack (Harry, 1938).

While the chances for deformity continued, the polio victim's pain decreased significantly in the convalescent and chronic phases, which allowed her to take a more active part in her care. Only then would she be allowed to engage in a series of activities and exercises to strengthen her body and to find out what capacity she had left. This was very much a practice of the mind and will, which speaks to the stripping away of ability thought to be caused by the disease. The following is an excerpt reflecting this decimation of ability and its re-construction, written by an unnamed "New York Times" journalist, for the Jan 1944, March of Dimes drive:

> Then there is the girl whom a doctor saw learning to walk.
> "What is her muscle set up?" he asked.
> "Muscles? She hasn't any," he was told. "She walks with her head!"
> And that is the spirit of Warm Springs.
> Or the boy who could walk only on hands and feet. Determination put him through years of operations; then training here. Now he walks on crutches and holds a responsible position with a magazine in New York. That is the spirit of Warm Springs. (Black 1996, p. 93)

The process of medical re-construction--physical and mental--required a particular type of discipline in the medicalized poliobody. Narrative closures in medical discourses limit the poliobody's capacity for it has been rendered paralyzed by the virus.

The potential for normalcy of the poliobody thus depends upon the re-making of it by medical technology in rehabilitation. In the process of rehabilitation, the progress of the medicalized poliobody is measured: the strength of muscle fibres and integrity of nerve connections are tested with machines; fine and gross movements are observed and recorded; its ability to engage in games and work is analysed. Finally, it passes through the process as "rehabilitated". This kind of poliobody, as a docile and potentially useful body, is limited by boundaries constructed for it by medical discourse. It does not step beyond the capacities that constitute it in discourse (Foucault, 1977/1995).

The limits of the rehabilitated poliobody in medicine are explained by two things: 1) The damage done by the virus on the CNS, and 2) The limits of the technology used in rehabilitation. The narratives of progress and war in truth games of poliobody discourse are used to rationalize this form of disciplined body and they served to institutionalize practices of orthodox medicine without much questioning from health practitioners and the general public. Once the ideas related to CNS damage by the poliovirus are institutionalized, there is little room made in the medical field for a new way to look at the poliobody, that is, until Elizabeth Kenny enters the discourse, with her powerful and challenging demonstrations, which become effective intermediaries in a process of disruption that eventually institutionalizes another truth about the poliobody.

Kenny's Alternative

Kenny enters the war against polio at a time when the public has little faith in the technology of medicine to counter the effects of the poliovirus on the body, for even though more is being done to the body in the acute stages of the disease, the results of such practices do not consistently produce bodies that are free from paralysis. Permanent paralysis and deformity looms as a very real possibility for any individual who gets the disease. This hopelessness I attribute to the narratives of progress and war against the virus, which narrow the options around treatment and justify the practices that cause iatrogenic paralysis. Alice J. McDonald, an M.D. specializing in physiotherapy, in a speech on December 10, 1944, to the Kinsmen Club of Vancouver, identifies the treatments that render the poliobody a docile entity, expected to be deformed, awaiting re-construction by means of orthopedic surgery.

> I was trained in accepted orthodox methods of Polio treatment in which the patient was splinted, or placed in a plaster cast, like an oyster on the half shell, and there he remained - for weeks, months, or years. He was a problem for the Orthopedic Surgeon. Sometimes the help of physiotherapy was called in - and he received massage and muscle training as we then believed correct. (McDonald, 1944)

Hopelessness is thus the first condition in which Kenny's poliobody emerges in discourse because any difference in practice that leads to a decrease in paralysis rates becomes a sign of progress in the field that warrants attention. Kenny provided just such a sense of progress with her practices, accounts of which portrayed her work as being progressive because of its effects on the body.

Kenny's acts of progress were out of step with any technological advances occurring in medical science for the following reasons. First of all, Kenny was

unscientific in offering rationale for the impact of her practices on the body. And in offering her rationale, she described a type of body that displaced what was formerly thought of as important in medical science in relation to the disease: the primacy of the relationship between the poliovirus and polio paralysis. This displacement created a space in which the poliobody could be seen to have capacity during acute stages of the disease, which becomes a second condition in which her account of the poliobody arises.

Poliobody Capacity

Because Kenny's methods are seen to have an immediate effect on the poliobody, her arguments for the same body's capacity to move, in opposition to the medicalized notions of the poliobody, garner attention. Instead of the poliobody requiring a process of rebuilding, as in medicine, it requires engagement with techniques that offer a new understanding of itself, one that draws on capacity from within. This capacity is not predicted and measured the way it is in medicine; rather, it is just *there* in every poliobody, like something one just has faith in. Kenny's identification of such capacity was made known early on in her contact with medical men, as this letter sent on April 11, 1935, to Mrs. Muscio, likely from a medical superintendent in Queensland, indicates:

> There is one essential difference so far as I can see in Sister Kenny's whole method, and that is that she does not allow the consciousness of ability and the desire to move a paralysed limb leave the patient [*sic*]. (Superintendent, 1935)

Kenny's faith in capacity is infectious. Due to her very powerful demonstrations on the poliobody (ones that received a great deal of press coverage) by the mid-1930's in Australia and by 1942 in North America, her calls to institute hot packs and to abandon immobilization are heeded in most healthcare settings and in homes. Capacity for

recovery from paralysis, because it is known to exist in spheres inside and outside medical science, hence becomes the foundation for an ethos in the poliobody field that is shared between those in healthcare professions, the parent or non-paid caregiver, and the polio survivor as patient in a way that was not conceived of before the arrival of Kenny's methods in polio rehabilitation. In working within an ethos of capacity emerging from Kenny's practices, there is a disturbance in the ways that entities are conceived of in the poliobody discourse. These entities are not always substances like the material body, but also the roles in which actants in the discursive field operate.

Kenny takes up roles in the field of practice that are also not considered very scientific. For example, she does not follow the rules regarding what constitutes a "discoverer" in the field of science; she capitalizes on her role as a "savior" using religious symbolism *and* technical terms as though the two of them should not be seen as distinct; and she takes up the role of "plaintiff" as though there is an organized effort to shun her from the medical domain, a type of reaction dis-allowed in scientific discourse because it addresses issues of bias thought not to be an issue in the realm of *doing science*. Kenny's actions in the role of plaintiff create a crisis in faith of medical technology that on one hand appear to offer freedom from the same technology's iatrogenic effects, but on the other hand create an environment of ambiguity in poliobody discourse that leads to lack of resolution as to what might have been the "right" way to proceed with polio paralysis treatment.

In the roles Kenny takes up, she is practicing from a discursive place that falls in-between modern medicine, with its ideas of technological progress, and ancient forms of healing that take account of the body's signs and symptoms within theoretical

frameworks that do not have access to the microscopic associations regarded as important in polio research. Kenny is thus in her work making accounts of the poliobody as a body as living flesh that are contingent on context, contingent on factors that differ from those factors designated important in the medical science. Kenny's accounts of the poliobody are sometimes intuitive, requiring a direct connection with the material body as referential, and sometimes textualized in a way that accounts for the poliobody as a modern, technical site. Hence, I suggest in my story that Kenny practices from a discursive place which frequently lies in-between (Parker, 1997) the domains of practice guided by truth games of medical science, nursing, and physiotherapy. Here, I use the metaphor of in-between to clarify how Kenny is positioned between what Parker (1997) calls "normatively bounded entities in healthcare" (p. 27), which I interpret as meaning the categories of the body and the work done with the body that is guided by processes of normalization.

Normalization, in a Foucauldian sense, refers to the making of categories in society based on the formalization of what is "normal" or "abnormal". These categories or classifications are rationalized and defended as theoretical entities that are true based on truth games in discourse and they are used to govern individuals (Kendall and Wickham, 1999). Each individual, it is hoped, learns to regulate her own behavior in accordance with the rules that apply to the categories into which subjects/objects in the categories fall, including herself as a subject, by choice or by assignment by others. In my analysis, Kenny questions normatively bounded entities in the poliobody field when she takes up the roles of discoverer, savior, and plaintiff, an explication of which help to structure my narrative in this chapter.

Progress, Kenny-style

Little David Greenfield of Irvington, New Jersey, was a boy stricken with polio in 1944. His recovery from paralysis was minimal using orthodox treatments; he needed a brace for foot drop and crutches to walk safely. Then later, because 4 other children in the neighbourhood had polio, a visiting Kenny technician was available to perform treatments consisting of hot packs and "stretching exercises" in his home. David moved from home treatment to the Kenny Clinic when it opened in New Jersey April, 1948. When Kenny herself visited him, she said,

> You're going to walk again, David [which] brought tears of happiness to David's eyes, because he knew the Sister wouldn't let him down. The miracle DID happen. After only six months of Kenny treatments, David threw away his crutches. (Betz, 1948)

Sister Elizabeth Kenny rarely lets the sufferers of polio down; her methods offer more hope for normalcy to polio survivors and their families than any previous methods, as the following excerpt from a letter by Mrs. A.K. Beckton Seattle, Washington, circa 1944 suggests:

> In September, my twelve year old son contracted polio. His whole body except his arms was involved. I was so glad that the Kenny method was to be used on our Kenneth. What would we have done if he become ill with the terrible disease in previous years! As it was, it was a miraculous recovery. He limps a trifle, + stairs are hard to use, but he keeps up his exercises + I am sure he will be normal soon.
>
> We thank God for you + your work. The knowledge of what your method accomplishes took away the terrible, overcoming fear that would have overwhelmed me. I could promise my boy that he would play socker [*sic*] again + ride his beloved bicycle again. (Beckton, n.d.)

The key to Kenny's success, Mrs. Beckton suggests, is related to the way Kenny conceives of the poliobody and it is also related to the ways she assists others to see the poliobody including the polio survivor. Kenny does not see the poliobody as an entity that is like a battlefield, stripped of its potential. Rather, she sees it as a site with

immeasurable capacity, which has to be made apparent to the polio survivor in order for her technology to work. The form of self-knowledge Kenny promotes is related to self-government in a Foucauldian sense. Whereas the poliobody in medicine is docile and its recovery is very much related to the quality of the technology applied to it, the poliobody in Kenny's practices is active, responsible in a large part for its own recovery. Any difficulty in its movement, instead of being directed to damage done by the poliovirus or a failure of technical devices or surgery, is attributed to 1) a lack of preparation to learn muscle movements (i.e. continuing shortening of the part or spasm) or 2) a lack of knowledge about movement. It is the technician's role to teach such self-knowledge but it is equally the polio survivor's role to engage in Kenny's practices as though they are a cultivation of self rather than a re-construction of the self. The following few paragraphs offer an outline of her work as it is described in her last text, related to dermo-neuro muscular therapy. I use this text because Kenny reports that it defines her notions of the poliobody and her work without a translation by medical men.

> This concept deals with the skin, its composition, activities, properties and architecture; the subcutaneous tissue, the investing and stabilizing fascia, muscle fibre, bones, joints, tendons, ligaments, the bodily units and mental pathways and pattern of movement, classification and typing of muscles; also my experience in the reaction of different types of heat when applied to the periphery' and my experience of the damaging effects of electrical stimulation when applied to the elastic properties of the skin, in what is known as "muscle testing" or "electrical stimulation". (1946, p. 27-28)

Kenny's concept here refers to the treatment of infantile paralysis as a disease constituted by muscle spasm and spasm in the sheaths around the muscles (the fascia), which in turn cause intense pain and changes in the skin and adipose (fat) tissues. The pain causes the individual to experience "mental alienation", meaning that she is

disengaged or disconnected with the affected part(s) in order to cope with the pain. Nerve pathways from the CNS therefore are not damaged by the virus so much at they are "shut off" by the individual with infantile paralysis.

Kenny assists the individual with infantile paralysis to be aware of her body once again so that she may re-gain "muscle consciousness" and can remember how her body moves as an organism, a "whole structure" or "circuit" (Kenny 1946, p. 55 and p. 98). To reach this goal, the polio survivor engages in a series of intricate exercises. The exercises to attain muscle consciousness address more than muscle groups; they take into account the skin, its elasticity and contours; the subcutaneous tissue and its "contraction" or atrophy (p. 55); the fascia , or "sheet or band of tissue which invests and connects the muscles" (p. 58); the rhythm and coordination of muscles, and also the bones. Kenny notes that the key focus for the patient is the movement of joints. "As movement, and not muscles, is registered in the cerebrum and the joint is the seat of the movement, then we must consider the joint as the focal point from which all movements are initiated" (1946, p. 97).

Prior to focusing on movement, the pain felt by the polio survivor is decreased via the use of hot packs, so that the pain no longer interferes with the impulse to move. The prescribed exercises to regain muscle consciousness initially require feedback from the limb *operator*, who knows the very delicate shifts and signs that the body conveys. Awareness of these shifts is interpreted at the surface of the body. The operator, a Kenny technician or a designate trained to give the treatments, places the patient in the position necessary for treatment of the (affected) part, initiates particular grips of the part and then moves the part for the patient. At such time that the operator gets proper signs from the

body, the patient is then encouraged to move the affected part. Although there is a focus on the part initially, it is always seen to exist in the context of the whole body, thus the affected part, in order to attain best results, *must* coordinate with movements in the rest of the body. Kenny (1946) warns that the proper use of muscles must be known by the patient because misuse of them will likely cause incoordination and future deformity. Kenny' s work, therefore, helps the patient to know her body and the way it moves differently than she might know it from a medicalized point of view. The patient must acknowledge the capacity that her body has from the outset of the disease.

A description of Kenny's methods to attain such self-knowledge is variable and dependent on the situation in which Kenny is asked to present her ideas. As I have noted, medical men took to rendering Kenny's poliobody in order to translate it for circulation within medical discourses. One difference between Kenny's account of the poliobody and the accounts offered by medical associates is that Kenny discusses how her practices work with a surety that medical explanations lack. Kenny is confident that her "concept" of the poliobody, as she called it instead of "theory", is in perfect accordance with her practices. Her lack of self-scrutiny is depicted as "unscientific" by her critics in medicine, for she appears to ignore that medical research does not find causal links between her concept of the poliobody, her treatments (beyond the abandonment of immobilization), and a decrease in paralysis and deformity.

The discrepancy between Kenny's confidence in her work and that of medical research I explain this way: Kenny uses inductive reasoning to find the truth about her poliobody and her treatments, whereas medical researchers engage in deductive forms of

inquiry that rely on foundational ideas about the poliobody, which restrict ways in which benefit to the body might be conceptualized.

Induction, from a constructivist perspective, is a form of reasoning in which the inquirer makes context-based conclusions about data, finding in it through immersion and experience in the field a direct or indirect relation to the object studied. Deduction on the other hand, is a form of reasoning in which the inquirer follows a sequence of actions that is carefully prescribed so that there is adherence to rules about how to proceed. In deduction, if the foundation upon which the argument is based is found to be true, then it follows (if the correct steps are taken) that the conclusions will be true. Kenny employs forms of induction that depend on her repeated experiences, while medical practitioners and researchers, supporters and opponents of Kenny, employ forms of deductive inquiry that depend on the scientific method and foundational ideas about the poliobody to make truth claims about the poliobody.

Kenny's employment of inductive techniques starts with the skin. In other words, she maintains that her work and her rendering of the poliobody are related to the signs and symptoms found at the surface of the body. Medical researchers, Kenny notes in a letter to the magazine, "Surgery", on August 18, 1943, are to take responsibility for the microscopic link with her practices and their effects:

> Dr. Key is mistaken when he states that I believe muscle spasm is caused by an acute inflammation of the muscles. I do not know what causes muscle spasm. I only know that it is there. I am expecting the medical world to find out the cause. (Kenny, 1943a, p. 3)

Kenny suggests she makes sense of what is *there* in front of her eyes and at her fingertips by conceptualizing polio as a local disease. She starts from a place that is

material in origin, the skin, and works inward, unlike medicalized processes of inquiry which start with inscriptions of the CNS damage and work to the periphery. Starting at the skin, Kenny works from an inductive hypothesis. Regarding spasm, she starts on the body's surface and sees evidence of what she knows as spasm, based on her experience from other contexts. She takes data from the surface of the poliobody at hand and compares it with her previous experience. She recognizes that on a consistent basis her practices--ones that alleviate spasm in other contexts--free the victim from pain, stiffness, and contracture. She applies the same practices to the poliobody at hand as a test for spasm. If the practices attain the results on the body she is looking for (a relaxation of the affected part, and likely a renewed ability to move it), then spasm is (or was) present. If spasm is present, not all innervation from the CNS can be lost. If not all innervation is lost, then there is *proof* that the poliobody has capacity to be free from paralysis.

Kenny makes it clear that physicians, in their denial of poliobody capacity, are not paying attention to the *symptoms as they present themselves* in the disease. She returns to this phrase over and over, a phrase she credits to her medical mentor, Dr. Aeneas McDonnell. I translate this phrase in the context of this paper to mean that medical men in orthodox settings did not pay enough attention to the body as living flesh, as an entity with other possibilities than the ones they attributed to it through narrative closures about its constituents. In orthodox medicine, the *material* locus for the work of the physician and the nurse, i.e. the surface of the body itself, at which its clinical signs and symptoms are registered, is put in a subordinate position to the inscriptions of the poliobody generated through laboratory research. Hence, notions of the virus and its attack on the body understood via inscriptions from the laboratory guide the understanding of "right"

and "wrong" actions in the clinic, so that the rules of engagement in the fight against polio stifle the possibility to problematize practices and offer alternatives.

The introduction of Kenny's methods and the freedom from paralysis that they are linked with forces a problematization of immobilization in medical polio rehabilitation. Kenny reminds clinicians and researchers that the truth about the poliobody might be "in the pudding" instead of the laboratory. The pudding is, of course, the material poliobody, which itself becomes a form of inductive laboratory for Kenny, the way that it might be for healers of ancient times or healers practicing outside of the disciplines of Western medicine on the body as a local site. If she was living in an era before biosciences, in a different time and place, Kenny might have been known as a renowned healer, a conveyor of (the) God's great powers, or a woman working the devil's magic. Even as late as 1942, when Drs. Cole, Pohl, and Knapp in Minneapolis published "The Kenny Method of Treatment for Infantile Paralysis," they reassure readers: "Nothing occult is involved in her method but it does demand an intimate knowledge of muscle anatomy, the neuromuscular system and much attention to detail in re-education" (p. 6).

Kenny also might have been known as a modern day alternative healer, operating on a different science of the body, but she resisted taking on the label of "alternative medicine" to describe her work. She had invitations to join the ranks of drugless healers, like Chiropractors (Canadian Association of Chiropractors, 1947), likely because of her alternative views of the body and because she engaged in practices very similar to those in myofascial release, which emerged during the 1930's out of massage and chiropractic. However, Kenny declined opportunities to be formally associated with professions other than those of medicine, nursing and physiotherapy, likely, as I have said in the previous

chapter, because of the powerful institutional infrastructure already existing in relation to the latter three fields. Despite the probability that she needs the resources medicine can provide for her and medicine needs the idea of a poliobody with capacity in its progress toward beating the effects of the disease, there are ongoing resistances displayed by Kenny and those in medicine to find a comfortable place for her in the field of medical science. In the rest of this chapter, I focus on Kenny's resistances to the normatively bounded entities in the poliobody discursive field, resistances enacted by Kenny taking up roles for herself that fall in-between what is typically known and what is possible. The first role is that of a *discoverer*.

The Discoverer

Kenny takes up the role of discoverer of the poliobody when she makes her claims about how her practices work. Her taking up this role is quite contentious because she is seen by most in medicine to have an inferior knowledge of the body compared with physicians. Her inferior knowledge of the body is made evident by her explanations of it, which are seen to be difficult to understand by medical men in Australia and in the United States. Even in the 1940's, there is discussion of her confusing rendering of the poliobody. In minutes of a Kenny Institute board meeting, her concept is questioned:

> (Dr. Harrington says that the Kenny concept good or bad has not been put in such shape that anyone can understand it.)
> (Dr. Pohl says that no one has taken the time to prove whether it is right or wrong but results prove it.). (Kenny Institute Board, n.d.)

Indeed, it is the results that Kenny repeatedly gains from the surface of the poliobody that keep her ideas and her practices in circulation. However, results alone do not have currency in the truth games of medicine to represent the truth about the

poliobody; they are instead offered up as "hypothesis generators" for controlled inquiry about the disease to be proven in the laboratory. Still, Kenny's results on the surface of the body are so convincing that she gains allies in medicine who help her to develop a rendering of the poliobody that is congruent with CNS-based ideas of it in medical science, forcing inquiry into notions of spasm in the disease that were likely not on the agenda before Kenny's arrival in the poliobody discourse. In retrospect, Kenny reflects that she did not agree with the medicalized poliobody from the outset, but allowed for medicalization of her ideas to gain allies. As a discoverer, she thought this politically astute.

> I often wonder what would have been the reaction if I had at this stage boldly stated that the orthodoxy was wrong from start to finish, not only in the treatment it offered, but in its concept of the symptoms. Would it have led to a closer investigation and an earlier recognition of the symptoms, or would it have meant stamping out the work forever? (Kenny/Ostenso, 1943, p. 133)

Kenny's effects on the surface of the body in relation to her ideas about the poliobody position her in-between medicine and an inductive place of practice that is based on the poliobody as body as living flesh. Individuals working within medicine continue to engage with Kenny and support her ideas because they see in her notions of the poliobody a capacity that is not available through medical technology. Starting from the skin, Kenny engages in inductive processes that are now frequently thought of as nurse-like (Oppewal, 1996; Wilson, 1995).

Nurses, even now, do not establish themselves as experts in the field of discoveries about the human body. The nurse is an expert at doing things on and in the body, but she is largely directed as to the nature of the body's anatomy and physiology in illness and health by medical researchers, who take up the role as discoverers and

diagnosticians of the body. Thus, modern nurses offer care rationalized by medical notions of the body. Jessie L. Stevenson's, "Care of Poliomyelitis" (published in 1940) reflects the role that nurses took in orthodox care of polio:

> Well-meant sympathy of relatives and friends who think "it is cruel to tie the poor child down on a frame" sometimes creates a difficult home situation which puts additional strain on the mother who is trying her best to follow the physician's advice. Sometimes the nurse can help them to understand that it is even more cruel to allow him to develop lameness and deformity... (Stevenson in Gould 1995, p. 95)

This is not to say that the nurse is always restricted to notions of a medicalized body, but she is obliged to keep her ideas about the body, in her in-between role, out of formal record of the patient's care.

For example, a nurse might consider that an elderly woman, whom she works with five out of seven days in a week for 3 years and knows well in a nursing sense, is delirious. She makes this assessment based on the woman's behavior, her mood, her thinking, and the odor of her urine (many nurses do). The nurse knows from an odor in the air to check for delirium. So, this nurse consults with a physician to confirm or deny the presence of delirium due to a bladder infection because she is not a diagnostician. The physician determines, based on an assessment of symptoms and the results from lab tests, that the woman does not have a delirium. The physician is the expert called in to confirm or dispute the *existence* of delirium, as a diagnosis, which is a normatively bounded entity in medicine, because he is the diagnostician and his answers are based on medical discoveries of the body that the nurse defers to, at least in the formal record.

Because the nurse has to continue her frequent contacts with the woman, she continues to modify her nursing work according to the woman's "delirium" as she sees it.

Thus, the nurse learns to use the skills that the woman's body requires of her in context (as a body as living flesh), regardless of the fact that the woman's symptoms fell short of the medical criteria for delirium.

If this same nurse operated like Kenny, she would openly declare and document her ideas about delirium and the strange odor in the woman's urine, without care about the defiance and inconsistency she would show toward the physician's judgement. In other words, she would textualize her notions of the body as did Kenny. Imagine if this nurse started documenting her personal conceptions of the body and its constituents (the foul smells, the funny looks, the tones of voice, the shift of food preferences) that are used to make her nursing judgements, nursing *diagnoses*. The nurse would likely be thought of as very unusual and unprofessional in her nursing rationale. Registered or professionally trained nurses are not like Kenny in that they rarely overtly resist medicalized notions of the body because medical representations of the body are unquestionably *the truth* in the truth games of health care. In this way, Kenny as a discoverer of the poliobody, inhabits a role that is in-between Nursing proper and medicine as normatively bounded entities in poliobody discourse.

Kenny's role as discoverer eventually becomes institutionalized and she develops specialized units and clinics to offer her methods. This requires of Kenny to train others about her concepts and it requires of her to become a consultant to medical men in regards to the poliobody. In her role as trainer of Kenny technicians, Kenny makes no claims to being a professional or registered nurse, although she is described in polio stories as being a nurse because of the training she claims to have. Kenny also does not seek formal collaboration with other nurse theorists (an emerging element of the

discipline) in the development of her concept and she does not claim that her work is a specialized form of nursing. Instead, she identifies her Kenny technicians as nurses who are trained to think very *differently* about the poliobody. Indeed, she likens technician training in Australia to entering a "pathless wilderness into which they could not venture with any real confidence" because of the "loyalty" to medical ideas about the poliobody (Kenny, 1943, p. 100).

Still, Kenny appears to value some elements of nursing knowledge about the body, perhaps the form of inductive reasoning that nurses use. In Australia and in Minneapolis, Kenny originally seeks trainees who are graduate (those with a diploma) or registered nurses (Kenny, 1943; Statement of Objectives, December 12, 1946). For her Australian nurse trainees, Kenny searches for those "who were fired up with sufficient zeal to overcome the unpleasantness that would be created for them by their fellow workers in the field of nursing. Experience had taught me something at least" (Kenny, 1943, p. 97-98). Just what kind of negative experiences Kenny has with other nurses is not well documented, except her experiences in training during World War I, which leave her feeling different than the other sisters (Kenny/Ostenso, 1943). Her experience of difference is not specifically stated except to say that Kenny feels she has very special relationships with her patients, relationships that differ from those the patients have with other nurses (of course, this attitude always goes over particularly well with nurse co-workers). Strangely, in most nursing history sources, Kenny is lauded as though she always practices Nursing proper. This stance in nursing history is a curious one. It denies the complicity Kenny perceives nursing to have with medical theorists in relation to the body, a form of loyalty that Kenny problematizes with her words and her actions.

Inhabiting her role as a consultant to physicians, Kenny appears once again to be in-between nursing and medicine. She is found to engender great strife in the operation of hospital wards. Operating as a consultant, Kenny is noted to have pushed the boundaries of the nurse role, given that in mainstream medicine the physician "prescribes, directs and coordinates treatment" (NFIP and National League of Nursing, n.d.). And she is seen to ignore the proper comportment of a woman, noted many times to be unlady-like in her demeanor. Consider what Kenneth Starr has to say in a report about Kenny's practices in Australia in 1939: "Sister Kenny's status as a consultant has emphatically a most adverse reaction on the consultant medical staff of the hospital." He adds, it is very difficult to administrate her "excrescent" units because "(u)nity of control is impossible, and the formulation of rules and regulations for the conduct of the unit cannot be achieved" (Starr, 1939). Why couldn't the unity of control be achieved? As a woman without training in biosciences, a nurse in-between, without claims to a professional nursing position, and a self-proclaimed discoverer of the poliobody, there was no *place* in the field of medical science predetermined for Kenny. Hence, it was difficult to govern others using as a rationale her concept of the poliobody and its treatment.

Savior

Since there is no place easily formulated for Kenny within medical science, she meets with continual resistance, which she uses to her advantage. It appears that in her ongoing battles with medicine, Kenny also inhabits the role of Savior in poliobody discourse, which depends upon her maintaining a stance that speaks for the "love of humanity" (Kenny, 1943a) and "in the interest(s) of humanity" (Kenny, E. (n.d.; Kenny, 1941c), rather than in her own interest or the interests of a particular discipline.

Inhabiting the role of *savior*, Kenny establishes an oppositional stance that is very productive for the development and circulation of intermediaries regarding her methods, sustaining a sense of need for her practices and expertise. Kenny's statements to those in medicine as well as statements to the press are particularly effective to mobilize physicians and the general public as both enemies and allies.

As savior, Kenny wears dark, simple clothes noted to be Victorian in style, but are easily associated with the dress of an individual denouncing material items, like a Catholic nun; she expresses numerous times that she does not receive a salary, that she makes no profit from offering care to children; and continues to work miracles on the surface of children's bodies. Kenny's appropriation of religious symbolism fosters a message to members of the public: they can have faith in Sister Elizabeth Kenny. But this sister is different in that she claims the role of discoverer of the body. Indeed, she claims to develop a "newer science" (Kenny, 1946) in relation to the same body and she certainly does not show a stereotypically meek and mild demeanor of a nun.

In both Australian and North American contexts, Kenny frequently makes comments about medical practices that are portrayed as downright scandalous. Her statements are scandalous because they report the iatrogenic effects of medical treatments determined to be counter to the narratives of productivity and war in poliobody discourse. Kenny, in her call to problematize well established medical practices, displaces the poliovirus from its position as enemy and calls for a movement to protect vulnerable children from orthodox medical men, scapegoating them.

As scapegoats, the orthodoxy is blamed by Kenny for most problems of paralysis, long after Kenny's methods are brought into the mainstream. Even the diagnostic tests

used to refute Kenny's claims to cure, such as emg's, are reported by Kenny in her 1946 text to cause harm to the poliobody. By displacing the scapegoat of paralysis in poliobody discourse, Kenny effectively mobilizes parents as allies in the networks of association around the poliobody.

First of all, parents get the message loud and clear that they should not stand back and watch medical men immobilize and mutilate the bodies of their children in the name of curing paralysis, because likely the paralysis is the result of medical work on the body. In her calling attention to the iatrogenic effects of orthodox medical polio care, Kenny creates a furious exchange of intermediaries in the networks of exchange related to the poliobody. These exchanges bring about frequent discussion of polio treatment in the popular press. Hence, a demystification of polio and its treatment occurs because it is something that is not only accessible to the experts of medical science, but to the layperson. The accessibility is covered by the press. For example, Sunday News article out of Illinois of February 13, 1944, showed the mother of Dwight Williams, a worker in a war plant along with her husband, offering him treatment at home after having learned the Kenny Method from a local nurse. Within three months, "Dwight is outdoors bringing in the cow. His parents brought him back to health without neglecting either their jobs or their seven other children" ("Homemade Miracle", 1944).

Secondly, in her process of demystifying polio treatment, Kenny opens possibilities for parents to reconfigure their normatively bounded roles in polio care. Parents, like my grandmother, begin to practice the "Kenny method" in the healthcare domain formerly left to the professionals in nursing, medicine, and physical therapy. With the involvement of parents in the direct care, their own practices being powerful

intermediaries, parents take up the role of hero in rehabilitation. One such hero is my grandmother (of course). And another is Mrs. Carl Benz, whose story is told in the Houston Press..

> Today, after the miraculous recovery made possible only by his determination and the efforts of a heroic mother who, refused to give up, Dickie is running, playing, and attending school without a trace of polio after-effect.
>
> Dickie Benz is a 9 year old boy of Mr. and Mrs. Carl Benz. Dickie was on home isolation and was thought to have almost lost his battle with polio until Kenny treatments were implemented. His parents spent over 1,000 dollars per week for the first months for his care. More than the expenditure of dollars, however, was the grueling toll of hours it was to take. Mrs. Benz accomplished in less than a day's time the mastering of the Kenny method of hot-pack applications, and stood guard with the three shifts of nurses-when nurses were available. Then, she stood guard alone....
>
> Dickie's complete recovery, the speediest in the South, came from the constant and efficient care he received. The Kenny cure means 24-hour-a-day vigilance, with 'absolute adherence to the 170-degree temperature rule, and immediate replacement of packs' Mrs. Benz declared. (Mother's Heroic, 1944, p. 11)

In becoming a hero, Mrs. Benz learns to follow the rules that save her boy's life and in doing so make him free from paralysis. However, where there is the potential to be a hero there is also the potential to fail. Parents of polio survivors who step into the domain of being the providers of technical skills formerly reserved for healthcare professionals, take on responsibility for their children's health outcomes that had not been attributed to them in the medical field previously. Instead of holding the poliovirus responsible for paralysis, instead of blaming immobilization, the skills of parents to teach the self-knowledge required to attain results in the Kenny method become an issue. Given that at least 15% of those with paralytic polio remained paralyzed and deformed to various degrees, there likely were some very devastated parents out there, especially if they were led to believe that hot packs alone constitute the Kenny concept of care.

Mrs. Benz, for example, is sure that the hot packs are responsible for Dickie's "speedy recovery", which brings up a very important point about the implementation of Kenny methods that I link to processes of normalization in poliobody discourse. There is a valorization of particular elements of her work--the application of hot packs and abandonment of immobilization--in most healthcare settings because the same practices can be explained using normative accounts of the poliobody in medicine. Kenny's other practices (the intricate exercises and positioning) are marginalized because they are explained using her notions of the poliobody and can not be rationalized using medicalized notions of the poliobody. When Kenny identifies the processes of appropriation and exclusion of her practice in medicine, she inhabits the role of *plaintiff.*

The Plaintiff

Kenny enters into poliobody discourse having faith in the processes of inquiry in medicine, as though she is engaged in a contract with representatives in the field, taking on a partnership with them. She is not familiar with her partner's ways in determining the truth, in the truth games of medical science, and she has faith that the truth about her effects on the body will not be denied in medical research outcomes. However, Kenny soon learns that results in the clinic do not prove the truthfulness of a theory about the corporeal body and its treatments, and the results on the body as living flesh are only one part of a larger truth game in science. When under scrutiny by medical science, her poliobody as living flesh becomes an entity in the laboratory that is broken down into constituents completely inaccessible to her and the general public. And with the delivery of her practices to the poliobodies of medical science, as *poliobodies of a particular kind*, her practices are watered down. Yet, the practices still carry her name. It is on the

grounds that medicine misrepresents her and her work that Kenny becomes a plaintiff, in this case about a partnership that begins to sour almost from its inception.

Now, Kenny does not take medical practitioners and researchers to "science court", she takes her grievances to the public, who become allies to her, like watchdogs of medicine in polio care. But even after the charges are laid and arguments are made for both sides, no clear answers arise as to what is the best way to proceed.

For Kenny to gain the status of "partner" with medical practitioners, it is assumed that she will give up some very important things. First of all, she is expected to relinquish her sense of ownership about her methods because in medical science, nobody is supposed to *own* ideas or practices. They can, however, lay claims to their discoveries and hence can defend them as their own. However, there is no consistent place in medicine for Kenny as a discoverer of the poliobody because her credentials are illegitimate to medical scientists. She sometimes declares her ideas are not given credit because she is "'only a nurse'" (Mrs. E. Parker, n.d., p. 12).

Secondly, she is expected to follow particular guidelines around communication with other scientists and with the public. She is not, for example, once finding out something negative about another's work, to go to the press in order to gain more awareness for her own practices, but she does. Her practices are required to gain credibility from *within* science, using proper protocol for inquiry, if they are to be issued any certification of their truthfulness in the field. Kenny, of course, determines that such restraint on her communication is unjust and that her ideas are much too important to be hidden away in a laboratory for the years they are being investigated.

So far, it seems as though Kenny breaks her side of the deal in her partnership with medical scientists, warranting their rejection of her from the field. However, the gains made in the process of letting the Kenny method *belong* to medicine are more suspect in Kenny's analysis. Although medical scientists in Australia and in the United States might argue that they are going about their usual process of finding out verifiable and causal connections between Kenny's practices and the incidence of decreased paralysis and deformity, separating the wheat from the chaff so to speak, they are, in Kenny's view, appropriating some elements of her work in a way that she finds underhanded. Her practices, like the use of hot packs and the abandonment of immobilization, are appropriated, co-opted into medical rehabilitation in Australia and then again in the United States. However, her textulization of the poliobody supporting the use of those same practices is rejected and new, medicalized textualizations of the poliobody that does not depend on the presence of Kenny nor the material poliobody for their validation, arises in its place.

In Australia, from the time they are first introduced, there are attempts by medical practitioners to appropriate Kenny's practices. Medical men argue that the use of hot packs and exercises are not unique, are not highly specialized and could be easily implemented with some theoretical grounding in their effects on the medicalized poliobody. In 1934, for example, Sir Raphael Cilento reportedly accuses Kenny of copying the published work of Wilhelmina Wright, an American physiotherapist associated with Dr. Lovett, author of a very influential text on orthodox polio care (Kenny, 1943). After some apparent rudeness and avoidance on the part of Cilento, Kenny brings the issue to the press, a move which apparently leads to her being

dismissed from the Townsville clinic and the soon-to-be-opened Brisbane clinic, only to be replaced by a trainee. A highly publicized comparison between the ideas of Kenny and Wright ensues and there is seen to be no similarity between the two. Public opinion is on the side of Kenny, and she recalls in her first autobiography that many telegrams are written to parliamentary representatives in support of her reinstatement. She is shortly thereafter on staff at the two clinics above, retaining the trainee who was willing to usurp her role as commander of the Brisbane Clinic (Kenny, 1943, pp. 119-122).

Still, by May 15th, 1935, Kenny's role in the Brisbane clinic is unclear, as this letter from Dr. Raphael Cilento to Mrs. A. Downey regarding her request and permission for her son, Kevin, to be treated at the Kenny clinic in Brisbane suggests:

> ...you will observe that Sister Kenny has now declined to open a Clinic in Brisbane. Mr. Hanlon [then Health Minister], however, who has committed himself to the Queensland people on the subject has decided to do so, using the Nurses trained by Sister Kenny...(Cilento, 1935)

While her clinics continue to operate in Australia, they do so under the authority of politicians, bureaucrats, and medical men. Beyond the walls of the clinics, modified methods emerge and they do so without bearing Kenny's name. This appropriation, reflecting an understanding that Kenny does not have a right to mark her intellectual territory, opens up an opportunity for the orthodoxy to reject Kenny because of her flagrant misconduct, while retaining her practices thought to be most useful.

In the Commission's report, Kenny's methods are noted to be unfounded in science and potentially dangerous. Why dangerous? Because her claims to poliobody capacity can not be proven and hence false hope might have been offered to polio survivors (Queensland Commission Report, 1938). The same report does not have an

immediate effect on the operation of many Kenny clinics across the country (Wilson, 1995), but it does cause a rather rapid erosion in Kenny's credibility within the field of medicine because the capacity she promised might be related to the practices she hawks, like a snake-oil salesman rather than a scientist. This lack of credibility, adding to the fact that she is absent from the Australia for many years and therefore unable to garner media attention for her poliobody, unable to conduct demonstrations to use as an intermediary in her associations with the public, leads to the eventual closure of Kenny's clinics.

In the United States, a different process of compartmentalization and appropriation occurs. There, Kenny's name and her presence as a primary figure in the field of polio rehabilitation is not dissociated from practices like the use of hot packs and early mobilization. Rather, Kenny's name and position as an expert, almost a guru, are used by those in the medical mainstream, namely those in the NFIP, to market modified versions of her treatments, which depend on an ethos of capacity for their acceptance. In this process of appropriation, an unregulated mass of treatments passes for the "Kenny method". For example, Dr. George J Boines from Wilmington, Delaware after a period of 2 days observation of Kenny at the City Hospital in Minneapolis, October, 1941, was wholly convinced by her theories about the poliobody and its treatment. He notes,

> She knows the law of mechanics by which all body movements are controlled. It is this knowledge which enables her to look a patient over and detect every muscle which is spastic or which is pulling in the wrong direction. (Boines, n.d., ¶ 3)

Despite Dr. Boines' reverence for Kenny and her unique knowledge of the poliobody, knowledge he admits he is lacking, he and his colleagues from Wilmington decide to implement the method on 16 of their own patients back at the Doris

Memorial and Wilmington General Hospitals. An "immediate and almost spectacular improvement" is reported in all 16 patients (Boines, n.d.). So, without the proper knowledge of Kenny's poliobody, using Kenny's textualization of the poliobody as a foundation from which to justify their work, Dr. Boines and his colleagues, with *no* hands-on training, engage in the Kenny method, which by this point takes on many forms. For Mrs. Benz, it is the application of hot packs; for my grandmother, hot packs and massage along with physiotherapy; for the doctors in Wilmington, who knows quite what.

What occurs in this process of compartmentalizing her work, according to the plaintiff Kenny, is that it loses its integrity because the Kenny method, as it is known in medicine, bears her name but little resemblance to her original concepts and practices. She does not publicly exclaim a worry about the lack of integrity in providing her work, though, when claims are made about its success. Instead, Kenny begins to make note in the press about the dismantling of her work to offset claims that are being made about its failures.

In June 1944, there was the particularly significant report in the JAMA, as I mentioned in chapter three, indicating that Miss Kenny's claim to an 80% recovery rate from paralysis compared with the 13% rate through orthodox treatments is " a deliberate misinterpretation of the effects of the treatment by other methods" (J Ghormley, R., Compere, E., Dickson, J., Funsten, R., Key, J., McCarroll, H. et al., p. 466). Kenny does not take this report as an act of scientific skepticism. Instead, she links it with an effort to shun her from medicine, an effort organized by the NFIP. In this line of argument, she indicates that beginning in 1942, the NFIP shuts her completely out of the development

of clinics and programs which claim to teach her methods. In addition, she notes there are moves by the NFIP to present her ideas at polio-related conferences without her approval ("Polio Foundation Fights", 1948, p. 20). On radio and in the press, Kenny repeats these grievances and she adds the public should not be fooled.

Kenny claims the public gives millions of dollars every year to the NFIP, understanding that a portion of those funds go to her and her Institute. What they do not realize is that the funds are going to particular forms of research and education regarding *a poliobody of a particular kind* to thousands of healthcare providers in sites outside of Kenny's realm of governance, although in the name of her method. The NFIP also offers up its defense, primarily indicating that the programs to offer the Kenny method were initiated in good faith. The NFIP claims medical practitioners and physiotherapists in the programs are staying true to elements of the method that identified as credible using deductive modes of inquiry (O'Connor, 1944; Van Riper, 1948).

This public argument, rather than ending up in Kenny's favor, causes a crisis in faith of many receiving the Kenny method. How does the implementation of techniques interfere with the poliobody's capacity to be free from paralysis? Just what is the right thing to do? Floyd McGriff, a representative for 9 weekly newspapers in suburban Detroit expresses this confusion to Kenny in a letter dated January 7, 1946:

> Now this is where the public is utterly confused. Can a physician gain adequate knowledge in one week; can a nurse or physiotherapist gain adequate instruction in two months, in your method of treating polio? (McGriff, 1946)

Kenny repeatedly says not. While, on the other hand, the NFIP continues its approach that familiarity with the concepts are adequate for tapping into the capacity individuals have to be free from paralysis ("Fifth Annual Report", 1944). So, the NFIP

acknowledges the presence of poliobody capacity but it does so understanding that such capacity is linked directly to the practices and technology of humans. The NFIP indicates that time and resources are lacking to teach and implement the Kenny method in its original form, and besides there is no scientific proof that Kenny's intricate relations with the surface of the poliobody guaranteed less paralysis and less deformity. There is, however, statistically verifiable proof that spasm exists, requiring the use of hot packs for its relief and there is experimental data linking early exercise with freedom from deformity. The NFIP thus delimits the scope of its Kenny method based on a form of capacity confined by particular corporeal determinants, like emg readings and strength monitoring, regulating conditions of its existence within science.

In my history, Kenny's notion of capacity, on the other hand, is an unbounded potential belonging to a poliobody that is a sublime entity. Her notion of capacity is accordingly not confined by corporeal determinants measured in the laboratory. Rather, it is produced and reproduced via direct exchanges with the surface of the poliobody, which are not well taken account of textually in her concepts. This lack of textualization becomes problematic when Kenny, in the role of plaintiff, argues that anything less than her full complement of practices will put recipients of polio care at risk. Once her argument for genuine Kenny treatment is set forth, recipients of polio rehabilitation inhabit a field of risk that can not rely on the truth about the poliobody as the normatively bounded entity generated through scientific inquiry. Barbaralu Sanderson, in an "Open Letter from a Polio Victim", published in San Fernando, California, Thursday, Dec. 2, 1948, who "can only walk a little" after her discharge from LA County General, reflects upon this risk:

> I am writing you to find out what has happened to me, to find out whether or not I have had the best treatment available...I have been reading the newspapers about the activities of the Citizen's Polio Research League here in San Fernando Valley, with great interest, I think, however, what they say and what doctors and Sister Elizabeth Kenny say, is a serious charge against polio treatment by doctors and hospitals which are supported by the National Foundation for Infantile Paralysis.
>
> If what they say is true, then I may be a cripple for the rest of my life merely because I was not treated by the Kenny method. If what they say is not true, I think you ought to tell me. I think all polio victims including myself, ought not lose faith in the treatment they get. If we don't have faith in our treatment, it cannot be as effective as though we did.
>
> So that I know, and all the others, will you please answer these questions?
>
> When I was at the County General Hospital, I was told I was receiving the Kenny treatment. I was put in mildly hot packs three times a day for forty-five minutes each. The Citizen's Polio League tell me that the Kenny treatment includes among other things, fantastically hot packs which are kept hot almost 24 hours a day [*sic*]...
>
> Did I get the Kenny treatment as I was told I did?
>
> ...I am very anxious to know what has happened to me. Have I been treated by "obsolete methods" of the National Foundation or are they better than the Kenny Foundation methods which claim 85 per cent recoveries?... (Barbaralu Sanderson, 1944)

In her remarks, Barbaralu includes statements made by the Citizens' Polio Research League, a watchdog of medicine in the poliobody discursive field. The statements thus become intermediaries transformed by Barbaralu and thousands of other polio survivors who ask questions that appear impossible to answer when one considers the unregulated mass of practices passing for the Kenny method. Kenny fails in her attempts to gain regulation over the practices she claims to have developed because she is not successful in introducing intermediaries that mobilize allies in the poliobody discursive field. The intermediaries she introduces to the United States in 1944 are the same one she offers in 1940, ones that quickly lead to an ethos of capacity in medicine, distracting the public from issues about the iatrogenic effects of immobilization pre-

Kenny. However, simple faith in Kenny and her miracles on the poliobody are no longer enough to offer up answers to the new problems she poses.

Kenny argues that medical practices condoned by the NFIP are inferior to her practices because they limit the capacity of polio survivors. She can not, however, provide a notion of capacity that is directly linked with her form of technology because her notion of capacity has been established as an entity that exists in isolation from practices performed on the body. Kenny establishes early on that one should have faith in poliobody capacity, not because it is re-constructed as it is in medicine, but because it is just *there*. How can Kenny expect to control access to such capacity? It is sublime in nature, thus the implementation of her regulated strategies might or might not be reliably linked with it. Because of this uncertainty, the recipients of polio rehabilitation who take a critical stance are left wondering: Did Kenny win her case against the medical orthodoxy? No. Instead, there appears to have been a mistrial.

In suggesting there has been a mistrial, I am aware that I do not offer the reader a sense of resolution about the truth value of Kenny's practices beyond the ways in which they are seen as true in the context of poliobody discourse. In this chapter, I have explicated the roles that Kenny inhabits in discourse to keep in circulation her ideas and practices. In the next chapter, I offer an examination of truth games highlighting Kenny's exchange of intermediaries with actants in the poliobody discursive field. The exchanges I depict shape the actants as subjects in the field, subjects that make strategic moves like those enacted in a game of chess.

Truth: the Daughter of Exchange?

> In presenting any revolutionary work, it is well to review the history of that work and its progress; more especially, if that work invades in any way the field of medicine. It is acknowledged that medicine is slow to accept new theories or new treatments. This shows wisdom and is most desirable. However, it is written, "Truth is the daughter of time," and if time proves the new theories correct and beneficial, their non-acceptance is transformed from wisdom to prejudice and is undesirable. Therefore, it is my desire to present what time has done for the newer science of dermo-neuro-muscular therapy evolved for the newer concept of the disease, infantile paralysis. (Kenny, 1946, p. 11)

The paragraph above is part of an introduction to Elizabeth Kenny's book "Physical medicine: The science of dermo-neuro-muscular therapy as applied to infantile paralysis," in which there is offered a "ten year resume" of her methods (1946, p. 27). Claiming a position from within the field of medical science, physical medicine specifically, Kenny reflects upon medicine's failure to adequately conceptualize and treat the disease of infantile paralysis. As a "scientist" she thinks that prudence and skepticism are called for in medicine, but she resents the resistance displayed by medical researchers and practitioners to accept her method on the whole--including her theory of the body in polio--based on the argument that her work lacks statistically significant advantages over traditional methods. Kenny, in letters and textbooks and reports, brings to the reader's attention the fact that there is plenty of empirical evidence supporting the benefits and correctness of her method, but she claims this evidence is not enough to grant her work validity in medicine because of prejudice. Given medicine's resistance to change orthodox practices so that they are in alignment with her innovative understanding of the poliobody, Kenny appears in narratives to have no other alternative but to become a "revolutionary". As a revolutionary, she righteously fights for the validity of her ideas because her treatments are seen by her and a few others to free the survivor of infantile

paralysis from limitation on his or her potential, limitation caused not so much by the virus as by orthodox medical procedures.

Kenny notes above, "Truth is the daughter of time", part of a line that is also in the foreword by Dr. H. Wilkinson in her 1937 publication "Infantile Paralysis and Cerebral Diplegia: Methods Used for Restoration of Function" (hereafter Infantile Paralysis): "Truth is the daughter of time, not of authority" (p. x). Wilkinson references this statement to Francis Bacon (1561-1626). And indeed, there is a similar statement in Aphorism 84 of the first book of Bacon's *Novum Organum* (1620):

> With regard to authority, it is the greatest weakness to attribute infinite credit to particular authors, and to refuse his own prerogative to time, the author of all authors, and, therefore, of all authority. For, truth is rightly named the daughter of time, not of authority. It is not wonderful, therefore, if the bonds of antiquity, authority, and unanimity, have so enchained the power of man, that he is unable (as if bewitched) to become familiar with things themselves.

There is much irony to be found in Kenny's use of Bacon's statement, to which she gives no reference as though it is a figure of speech (it is) or perhaps her own creation. Bacon here suggests that the scientific method is needed to find truth about the Natural world so that it is not mired by reverence to sages, the authority philosophers and indeed by common sense. Whereas, Kenny is questioning the truth generated by medical science. She hopes Time will grant her truth, because so far the laboratory has not. So this brings me to the focus of this chapter. The primary goal here is to have the reader consider how the truth about the Kenny method is generated. She argues there is operating in medical science, likely much to Bacon's dismay, a process of *general consent* about the poliobody that ignores its truth. I explore issues related to truth and its link with Time, the laboratory, and associations between humans and non-humans in the

context of the poliobody discourse. I examine the truth games in the field, which involve the interplay of differences that have as a "main station" the site of poliobody itself.

This chapter gets its structure from commentary about the truth games and, in particular, it pays attention to moves that I consider to be significant for Kenny and those associated with her, primarily medical men in Australia, England, and North America. The moves are in some way strategic and they involve significant exchanges of intermediaries like money, technical skills, inscriptions of the body, journal articles and reports related to the Kenny method. The exchanges, when examined, are sites where power is consummated. They also provide instances of how an object of knowledge is formulated within discourse, for they speak to the definition of the poliobody. The first heading, then, relates to some rules that are established in orthodox medicine, which are then challenged.

The Rules About the Disease

When Kenny enters the discourses related to the poliobody, she enters a field already demarcated by rules established about how to conceptualize the disease, poliomyelitis or infantile paralysis. Kenny almost always reports she treats "infantile paralysis", which is considered a colloquial term for poliomyelitis. She does not announce that she uses the name to take a particular stand against orthodox ideas, although, as a name, it ignores effects of the disease that occur at cellular and sub-cellular levels. Rather, she uses a name that is very much in circulation by those working directly with the poliobody. Many clinicians, general practitioners, as well as those outside of medicine like caregivers, journalists and even President Franklin D. Roosevelt, use the name infantile paralysis when referring to the disease.[x]

It is the term infantile paralysis that Kenny, under the instruction of Dr. Aeneas McDonnell in 1911, attaches to symptoms *as they present themselves* in paralyzed children: fever, heel twisted and turned outward, or abducted, arm flexed across chest, abdominal muscles contracted, inability to voluntarily move limbs, extreme pain at rest, increasing with attempts at passive movement (Kenny/Ostenso, 1943, p. 22-23). These limbs are not inactive, but rather they are active in a way that is sub-clinical in that they are not recognized in orthodox clinical settings.

Alone in homesteads of rural Queensland, Australia, Kenny responds to what she sees and feels and hears, using her intricate knowledge of the gross anatomy of the musculoskeletal system, a system of classification that developed from the time before Galen, and a system she reports learning from her own explorations in concert with consultation from Dr. McDonnell before her formal training as a nurse (Kenny/Ostenso, 1943). With her focus on the surface of the body, Kenny is naive to the scientific truth about polio, which frees her to develop wholly unique perceptions of the disease in the opinion of many.

> Miss Kenny had a keen analytical mind, unprejudiced by previous contact with theory or training in the prevalent conception of treatment of this disease. She was furthermore without knowledge of postmortem pathologic appearances. She was, in addition, thrown entirely on her own resources. (Cole and Knapp, 1941)[xi]

In medicine, the rules about delimiting the disease "poliomyelitis" depend upon analysis of microscopic evidence as well as meso and macroscopic causes for signs (objective evidence for pathology) and symptoms (subjective expressions of pathology). Nurses, physiotherapists, and massage therapists, working in association with physicians--and also under the authority of them--adhere to conceptions of the poliobody generated

in medicine. Kenny, on the other hand, maintains a position, long after she learns the scientific truth about the poliobody, that is not considered to be a particular view of nursing, nor any other health discipline. She questions the foundational ideas of the medical poliobody and creates a new concept for the disease. She notes, "...it is sufficient to present to you the fact that orthodoxy throughout the world is treating a disease that does not exist" (Kenny, 1941).

The primary foundational idea about the poliobody in medicine pre-Kenny is that the poliovirus attacks the anterior horns of the spinal cord in the CNS, rendering muscles paralyzed due to lack of innervation: "The muscle itself is never affected by the disease but is comparable to an automobile with its battery stolen. The muscle is loose and flaccid and hangs like a hammock between its points of origin and insertion" (Kenny, 1945c; Kenny 1943a). Kenny refutes that muscles are flaccid, for she, in *each* case that she treats, sees dimples and changes on the *surface* of the skin and she feels tension on and under the skin, indicating spasm which is, of course, thought in orthodox medicine to be impossible, based on the premises about the body in medicine. Kenny identifies that in fact, the affected muscle is working over-time and it is pulling the normal muscles, the unaffected ones, out of position.

The symptoms for the disease poliomyelitis do shift by 1942 when spasm is finally verified to exist by researchers R. P. Schwartz and H.P. Bouman, who in their July 18 "JAMA" article attribute their discovery indirectly to Kenny. They confirm her persistent reports that muscle spasm does exist in acute polio. And they note the disruption she makes in orthodox polio aftercare. "The point of view which would differ from the understanding established by one hundred and fifty years of work [in

medicine] has now been expressed by Miss Elizabeth Kenny" (p. 924). Bouman and Swartz present an investigation of spasm, in a process that steps outside of the realm of clinical observation into the microscopic realm, to record action currents produced by muscles via emg. They confirm, using graphs for visual comparison, that "spasticity is a general feature not limited to the antagonists of the weakened muscle but present also in the weakened muscle itself and in many other muscles in which no clinical symptoms of weakening are present" (1942, p. 925). They note that spasticity is "of a reflex nature and is not present in the completely paralyzed muscle" (p. 926), which indicates they adhere to medical conceptions of spasticity as something related to the ways in which nerve impulses are processed through the CNS, due to destruction caused there by the poliovirus.

This position differs from Kenny's because she indicates spasm is due to a generalized disease process, affecting the muscles as peripheral structures of the body (Kenny, 1946). Schwartz and Bouman (1942) report they have not generated enough evidence to prove that weakening in muscles is caused by spasm, for it "may be a phenomenon which is merely another consequence of the disease..." (p. 926). Hence, the two authors exercise a "scientific" approach to their discovery, in that they make claims limited to the results of the data they collect. Kenny, on the other hand, does not hesitate in ensuing years to refer to the 1942 article as a confirmation of her beliefs about spasm. In a decidedly *un-scientific* way, she cites results from the report of Swartz and Bouman, translating them so that they align with her claims. Her translation, however, does not bring on reprimands from Swartz and Bouman. Although Kenny is not honored with telling a new truth about the poliobody in their

article, she is given credit for her achievements in another location. In May 1943, the University of Rochester--the same location supporting the research of Swartz and Bouman--confers upon Kenny an honorary Doctorate of Science (Wilson, 1995).

So, despite attempts to constrain Kenny's claims in the medical literature for the existence of spasm, she continues to defy the rules set forth by the medical orthodoxy because she persists in claiming it is possible for there to be alternative reasons for spasm *and* she is awarded for this persistence. She suggests spasm is related to a local process at the sites of the muscle; the lining of the muscle, called fascia; and the skin itself. And in a most disobedient way, she insists muscle spasm is prolonged by orthodox treatments, such as immobilization, improper positioning and incorrect handling of the poliobody itself (Kenny, 1937; Kenny, 1946). Kenny takes her defiant attitude into associations that involve the following significant moves.

Moving into Townsville

In 1933, after the sale of St. Canice's in Clifton, Kenny moves to Townsville, a coastal city in Northern Queensland (Wilson, 1995). In Clifton, she is the only individual promoting active treatment for acute infantile paralysis. When she moves to Townsville, she continues this active approach. However, there she enters into a practice arena more populated by nurses and physicians, one, therefore, with more strictly regulated practices. Still, infantile paralysis is rare and there is paucity of knowledge about it amongst general practitioners and the nurses working with them (Kenny/Ostenso, 1943). At the Townsville clinic, a rather basic site located in a backyard, Kenny does not rely on the expertise of physicians to guide her practice. Instead, she runs the show, enlisting family members to help her offer free care, comfort, and her system of hot packs and exercises

to those with infantile paralysis and cerebral diplegia (likely cerebral palsy and spastic paralysis) (Kenny/Ostenso, 1943; Wilson, 1995).

While working in Townsville, Kenny employs techniques that have elements similar to the primary elements of nursing. She teaches families how to care for their loved ones; she creates a safe and clean environment; she offers comfort and hope with the goal of promoting health. Still, nursing authorities do not seem to consider Kenny's work as something that falls under the rubric of formalized nursing care. Nurses do not publicly express worry about Kenny's presence in Townsville, nor do they make claims to her work as a part of a wider field of nursing expertise.

There appears to be more of a concern that Kenny is practicing in such a way that might be deceptive or a danger to the public, when the Townsville clinic is inspected by Dr. Raphael Cilento, Director General of Health and Medical Services, in 1933.[xii] Cilento's inspection comes at a time when Kenny's work is recognized by the press in Townsville and Brisbane (the largest city in Queensland), for it appears that she is producing a cure for infantile paralysis that can not be attained in medical clinics (Cohn, 1975). Kenny does not claim to be practicing medicine, rather she works in an area that exists by default, an area of practice she claims as her own, the boundaries of which are flexible, as I have noted in the previous chapter.

Kenny's position is one that does not have the same support, constraints, and limitations on practice legislated by professional associations. But this is not to say that it is freed from the regulation brought on by medicine as a "regime of truth". Rather, Kenny's methods are governed by truths produced in medicine because constantly she positions her work directly in relation to medical practices. Hence, moves made by

actants in the field of medicine, which involve the exchange of intermediaries, influence the translation of Kenny's methods in poliobody discourse. Some of the moves I highlight below.

The Deals

Cilento, an advocate for socialized medicine for the Labour government of the day, is impressed by Kenny's results. Instead of using her "revolutionary" practices to establish restrictions on her individuality, he sees in Kenny's work an opportunity. She is asked by Cilento in September, 1933, to demonstrate her method in front of medical practitioners at the Brisbane Children's Hospital so that her ideas can be exposed to local physicians (Wilson, 1995). Kenny receives a humiliating rejection during that demonstration and she then realizes that her method might be a hard sell to the orthodoxy (Kenny/Ostenso, 1943). Despite this rejection, Cilento cannot deny that Kenny's work is an effective and unexplored phenomena that might belong in the realm of medical science. Cilento approaches Kenny with a deal. She is offered an improved site to practice, one staff member and money to run the new "Experimental Government Clinic" in Townsville, which begins its operation in February, 1934 (Kenny/Ostenso, 1943). In exchange, she is expected to relinquish some control of the clinic's administration and she is to submit all of her work to the scrutiny and authority of physicians who are placed in charge (Kenny, 1937).

With this move, Kenny enters her work into the field of medicine, submitting to medical researchers and clinicians her poliobody for scrutiny. Her work becomes an experiment. Unlike medical scientists, Kenny does not engage in processes of research that are considered adequate assessments of her work, so she relies on others like Pohl,

Cole, and Knapp, who have faith in her outcomes, if remaining still guarded about her take on the poliobody. And as an experiment, there is shown toward Kenny's methods a great deal of skepticism that can be rationalized (even by Kenny herself) as being a healthy part of scientific inquiry. Cilento expresses this caution in a letter to the Consular Agent for France, May 9, 1935:

> Sister Kenny's method has been principally successful in early cases of Paralysis and there has been improvement also in old cases...Unfortunately, without Sister Kenny's permission extravagant claims have been made for the treatment through newspapers and these have perhaps led people to expect too much of it...Sister Kenny intends to publish her method and it will then be available everywhere. It must, however, still be regarded as being in the stage of experiment and this will be the case until two years have at least elapsed. (Cilento, 1935)

What are the "extravagant claims"? Kenny herself makes the claim that she can cure infantile paralysis in the mid-1930's, a claim she tempers by the late 1930's. And by the late 1940's, she notes:

> As a cure would mean 100 per cent recoveries in all cases, my reply has to be, there is no cure for the disease poliomyelitis; or, as a matter of fact, for any other disease, not even a common cold. But satisfactory treatment and unsatisfactory treatment can be given to any disease, and before a satisfactory treatment can be given gaining the highest percentage of recoveries, the true symptoms of the disease itself must be known in their entirety. To date, the knowledge concerning the full symptoms of the disease has not been distributed. (Kenny, n.d., p. 1)

There is no doubt that Kenny makes paralyzed children sit and walk and run again, but there is no way to substantiate her effects on the body as a cure in medicine because her ideas about the true symptoms of the disease differ from those held in medicine. Since medical science proved CNS damage as the cause for polio paralysis, to effect a cure, Kenny would have to repair CNS damage done by the virus. This type of cure, she does not pursue. Still, she pursues the truth as she sees it, especially after the damaging report generated by the Queensland Commission.

In pursuit of truth and acceptance by medicine, Kenny agrees to further study of her method by a seven member "honourary advisory committee" in Carshalton, England, in exchange for funding and clinical space at Queen Mary's Hospital for Children. A report is generated in 1938 by the same advisory committee, under the authority of the London County Council, that is more favourable than the Commission's. However, her work is still considered something that can not be evaluated as an entity outside of the marginal value it offers clinical medicine. Again, her ideas about the poliobody are completely disregarded (London County Council, 1938).

The skepticism about Kenny's work remains when she travels to the United States in 1940, seeking funding for research that is not available in Australia (O'Connor, 1944). She supplies her contacts in New York and Chicago with letters of introduction written by her Australian colleagues. One particularly important letter is that written by Dr. Herbert Wilkinson (1940), Professor of Anatomy and Dean of the Faculty of Medicine, University of Queensland to Melvin Henderson, the chief of Orthopedics at the Mayo Clinic in Rochester, Minnesota. In it, Wilkinson notes:

> ...one of her [Kenny's] main objectives in treatment is to avoid the harmful effects of prolonged immobilization, and in chronic cases she had attempted to undo these effects...Although improvement could be observed in some cases, in others the progress was slow; but sufficient could be demonstrated [sic] to give some grounds for a growing conviction that the undesirable sequelae due to immobilization which forms such a prominent part of the then prevailing treatment—at least in Australia—might be avoided (sic)...I merely wish to assure you, that I have met some medical men here in Australia who are competent to form an opinion and who, particularly from more recent observation of her work, are satisfied that Sister Kenny has made a definite contribution to the treatment of infantile paralysis and in fact has established it on a new basis. (Wilkinson, 1940)

Wilkinson's letter conveys the effects that Kenny's practices promise on the poliobody and it also offers reassurance that truth claims made about her work are verifiable, at least via the experience of medical men who are "competent to form an opinion".

To add to the weight of this letter, Kenny is able to demonstrate the effects of her work directly on poliobodies in Minneapolis, an opportunity denied her in New York and Chicago because there were no active cases to work on when she arrives in the respective cities (Cohn, 1975).

Through her demonstrations, showing a significant improvement in rates of paralysis, it becomes evident to her observers that Kenny's unique formulation of the poliobody and its truths are directly linked with the technology she applies to it. Since her practices are not rationalized using the orthodox medical conception of polio pathology--they do not fit with medical notions of the poliobody--she is at a disadvantage. To address this disadvantage, there are moves by Kenny's medical supporters in Australia and in the USA to fit the poliobody to the practice. This requires a *re-figuring* of the poliobody in medical discourses both in the Australian and American contexts.

Re-figuring

Kenny's demonstrations, because of their dramatic and irrefutable impact, usually pique interest in medical practitioners, but they are not acceptable tokens for confirmation of the truth in medical poliobody discourse. Rather, they serve as hypothesis generators, as noted earlier. Any good scientist understands, following Bacon, that the senses can not always be trusted for they are affected by the authority of others in a way that clouds one's understanding of things in themselves. To address her need to offer data

that can be taken up and effectively examined for its truth, Kenny is asked by medical inquirers to textualize her poliobody in such a way that it is rendered with words instead of actions. Her associates in the medical field at various sites and times render poliobodies that might be responsive to her methods, keeping in mind the textualizations must follow the rules about CNS-oriented notions of the disease.

The first of these textualizations is found in Kenny's 1937 textbook, "Infantile Paralysis", which was published in 1937 but was actually compiled in 1934. There was a delay in the publication of it awaiting "medical opinion upon the condition" (Kenny, n.d.a., p. 3)

In "Infantile Paralysis", Dr. Herbert Wilkinson and J. V. Guinane, M.B., B.S., F.R.C.S., a member of the Queensland Commission, omit Kenny's account of pathology and recovery in the disease (Kenny, 1937). In place of her explanation, Wilkinson, in his foreword, suggests that science can explain Kenny's results, using the notion of the virus's attack on the CNS. He notes that in cases where the Kenny method is successful, there is an incomplete destruction of the motor nerve cells and that what destruction has taken place is spread widely over the spinal cord, so that no one muscle is seriously affected (p. iii). Taking a skeptical approach to popular scientific notions of the disease, he notes there is "too much emphasis...given to actual destruction of motor nerve cells and too little to other possible structural derangements" (p. iv).

The other possible structural derangements Wilkinson refers to are those that are seen at a microscopic level, at the site of the lesions caused by the virus. Damage done by the virus, he notes, causes "profound disorganization of nerve conduction arcs with

resultant loss of function" (p. vi). The disorganization also causes an interruption in coordination and conscious control over muscles which is possible to re-establish.

> ...physical dissociation due to disintegration of the nerve conduction arcs gradually tends to produce mental dissociation. Mentally, the paralysed [*sic*] part gradually ceases to exist as a part of the structural locomotor organization and the stream of impulses from the "deliberative" forebrain will gradually cease to flow toward those pyramidal cells in the "executive" pre-central gyrus whose function is in abeyance. (p. ix)

Wilkinson suggests Kenny does not discover anything new about the poliobody; rather, she exploits practices already in use to re-establish "broken connexions [*sic*] in the nerve conduction arcs "and prevent "mental dissociation" (p. ix). Indeed, Wilkinson later reports that Kenny exploits his explanation above, implying that her claims of discovery about the processes of "alienation" and muscle awareness actually belong to him (Cohn, 1975).

Dr. Guinane, in his introductory notes to "Infantile Paralysis", supports Wilkinson's idea of partial destruction of motor nerve cells and his muscle re-education, adding that the partial destruction of nerve cells is due to "surrounding congestion, inflammation, thrombosis, or haemorrhage" (p. xxxi). Like Wilkinson, Dr. Guinane emphasizes that authority for establishing the practice and truth about Kenny's methods belongs in the domain of medicine. He offers reassurances to the reader that the Kenny treatment is not meant to be independently practiced by nurses: "It has always been Sister Kenny's ideal that her method should be at the disposal of medical men, and that the nurses trained by her should be an assistance and not rivals to medical practitioners" (p. xxvii). Indeed, Guinane emphasizes that Kenny's methods should not be practiced in isolation from other forms of polio treatment as a "new specialty" (p. xxvii).

Guinane might be making this point because between 1934 and 1937, in the stage of "experiment", Kenny is very vocal about her ideas that differ from her supervisors, behavior inconsistent with a well trained nurse. Kenny expresses her notions of the truth so often that she destabilizes the nurse-doctor relationship in her domain of practice. As I have said, Kenny seeks to offer treatment to individuals in acute stages of polio and, although she is denied this opportunity on paper, she is given a chance to do so in the clinic (Cohn, 1975). She is also granted a role teaching her methods to students. Formally, she has no authority in offering information about diagnosis and the anatomy and physiology of the poliobody, but just what she tells her students at bedside is another matter. In implementing her practices, Kenny must have imparted her ideas about the body in defiance to what was taught in the classroom. In this sense, the poliobody becomes a site at which her defiance toward medical men is realized; she resists their re-figuring and this leads to some concessions on the part of Australian physicians, concessions broadened by their American counterparts.

Drs. Cole, Pohl, and Knapp, in Minneapolis take another look at the Kenny method, deciphering her statements about it in the 1942 text, "The Kenny Method of Treatment for Infantile Paralysis," published the same year that the Elizabeth Kenny Institute opens. This text differs significantly from "Infantile Paralysis" in that it makes claims to maintain Kenny's terminology and her concepts about the body, while acknowledging that a high level of skill is required to administer the treatment, following her work step-by-step. The authors suggests the following problems are present in infantile paralysis:

1. The muscles affected present the condition of spasm.
2. The affected muscles become shortened.
3. Coordination is disorganized and incoordination frequently seen.
4. The patient frequently loses power in non-affected muscles because affected muscles are pulling the non-affected muscles from their normal resting place and retaining them in this lengthened position through the unrelaxed spasm in the affected group.
5. The non-affected muscles frequently refuse to contract due to "mental alienation". (Cole, Pohl, and Knapp, 1942, p. 7-8)

This explanation of spasm and its effects is one that is enduring; it is the one most often quoted in reports about Kenny's methods today. Although it appears to give credit to Kenny for generating unique ideas about the poliobody, this figuring remains grounded in medicalized notions of generating truth about the poliobody. Cole, Pohl, and Knapp determine she accurately describes "the conditions which are present", as they experience them in the clinic, but they offer a disclaimer in saying that they do not "attempt to analyze critically the theory of the method" in the context of scientific inquiry (p.6). They accordingly describe the "symptomatology" of infantile paralysis as follows:

> The disease in the acute stage affects not only the anterior horn cells but also the adjacent portions of the spinal cord. It may be segmental in character, involving the central nervous system including the sympathetic system in general so that symptoms other than those due only to involvement of the anterior horn cells must be present. (Cole, Pohl, and Knapp, 1942, p. 7)

The re-figuring above of Kenny's poliobody is thus one that is actually in alignment with old notions of the poliobody. Although it opens up the new possibilities for the location of CNS lesions, other than anterior horn cells, it grants little support to Kenny's concepts about infantile paralysis as a "new disease". Kenny does not publicly refute the re-figuring by Cole, Pohl and Knapp, but she does continue to generate

intermediaries which question the need for a new formulation, one that medical researchers might be interested in.

> IN A RADIO BROADCAST HERE LATE TODAY, SISTER KENNY REVIEWED THE HISTORY OF HER DISCOVERY, WHICH SHE TERMED "NOT A NEW TREATMENT FOR AN OLD DISEASE, BUT AN ENTIRELY NEW CONCEPT OF INFANTILE PARALYSIS--A CONCEPT WHICH HAS OPENED THE DOOR TO RESEARCH HITHERTO UNKNOWN AND HAS REDUCED THE CRIPPLING EFFECTS FROM 87 TO 15 PER CENT OF THOSE AFFLICTED. (Radio Address, 1943)

Researchers, indeed, are interested in the Kenny poliobody because of the outcomes her method produces. However, the researchers wish to maintain CNS-related notions of the disease for they are operating in truth games that rely on narratives of war and progress. Kenny's notions of the disease and its treatment, on the other hand, do not follow the rules set out in medical discourse. However, they do depend in some ways on medical practices, for Kenny links her reasons for finding the truth about the disease directly with iatrogenic effects of medical practices. She is on a "mission" ("Mission", 1949, p. 6).

The Mission

The poliovirus, Kenny admits, affects the nervous system and hence the muscles, but she does not place it at fault for the vast majority of problems in polio. For Kenny, the disease infantile paralysis is not marked by the invasion of the microbe and its sub-microscopic effects on the body; it is rather marked by the condition of the body at its surface, its inability to be free from pain, contractures and immobility. These problems, she insists, are exacerbated significantly by medical practices that ignore the reason for pain, and practices that enforce immobilization in the early stages of the disease. Indeed, she argues early on that no deformity will occur in infantile paralysis if immobilization is

abandoned and the Kenny method instituted. Regarding her work at the Elizabeth Clinic of Brisbane:

> During the fifteen demonstrations given at this institution I have proved the damage done by orthodox methods to be cruel and painful. If satisfactory treatment were to be given to the patients transferred from orthodoxy, in 100% of the cases it would mean the refinement of torture to these patients. I have proved, and it has been admitted that this torture need not exist. (Kenny 1939b, p. 3)

To say that orthodox treatments are tantamount to torture is to refute medical notions that the poliovirus delivers the torture. In her re-positioning of the poliovirus, Kenny finds a new scapegoat for polio paralysis: the medical orthodoxy. Her mission then becomes to protect the polio survivor from the harmful effects of the medical orthodoxy. This mission becomes increasingly difficult for Kenny to sustain because the orthodoxy soon takes up elements of Kenny's practices. Very early on, in both Australian and North American contexts, modified versions of Kenny methods, using hot packs and early muscle re-education emerge, so that delimitation of orthodox practices in terms of their adherence to rules about immobility becomes impossible (Kenny 1939c; Dr. Pye, 1941; Black, 1996; Kenny, n.d. b).

Still, Kenny maintains she is on a mission to protect the bodies of children from medical men who do not value her ideas and their associated practices. This strategy helps Kenny manage, in a productive way, the repeated rejections she sustains by medicine, which are based on her notions of the poliobody and her blatant disregard for scientific rules of conduct. Engaged in her mission, she reproduces herself as a potential contributor to medical science, rather than being an individual who works in an alternative realm of practice.

Kenny has the opportunity to join other alternative practices, like the drugless therapy Chiropractic with its different notions of disease and its relation to the nervous system. A letter sent to her on January 28, 1947, by the Canadian Association of Chiropractors, suggests such an opportunity. The Association notes that it will forward a proposal to Kenny at the end of her present contract, asking her to be affiliated with chiropractic instead of medicine. Further, it notes:

> There is no question that if Sister Kenny switched allegiance to Chiropractic that it would be "world news". On our part it would solidify our branch of healing in the minds of the masses--and on your part it would make available your healing to millions, today without its benefits because of doubt and scepticism [*sic*]. (Canadian Association of Chiropractors, 1947)

However, she declines offers to do so. In one response, in a letter to H.L. Collins, D.S.C., President of the Ohio College of Chiropody in Cleveland, dated December 15, 1943, she notes: "Owing to the many calls from the medical world, it is impossible for me to make appointments with any associations other than the medical societies" (Kenny, 1943b).

So although Kenny does not join the ranks of alternative healers, she does not declare a position ensconced in medicine. Instead she takes up the role of consultant to those in medicine, in such a way that she is offered money and institutional space in exchange for her work on poliobodies while maintaining the freedom to oppose practices generated by medical scientists. Kenny keeps her position on the margins of medical and nursing sciences so that she can foster an interplay of differences in medical discourse. She is different enough to be noticed, but similar enough to remain in the fold, although on its margins. Inhabiting a position in discourse of her own making, outside the

disciplines of "nursing", "medicine" and "physiotherapy", Kenny is free to defy rules of existence established within those same disciplines.

For example, as a former teacher of religion, Kenny does not maintain a distinction between the realm of "morality" and the realm thought of as immune from the authority of philosophers and sages, "science", as Bacon indicates. She recognizes that the realm of morality is accessible to parents and families, news reporters, nuns and clergymen, bureaucrats and members of congress, as well as all healthcare workers, whereas science is something that they hold an opinion on only via the reports they receive about it from experts working in the field. She uses this point of association with the public especially well in 1944, when she threatens to leave the Institute and the United States over issues with funding from the NFIP, and two articles deeming to be critical of her work. She takes her plight to the people for them to decide, generating many editorials and letters (as intermediaries) which speak in favour of her work. An example is from Mrs. A.K. Beckton Seattle, Washington:

> We have heard of your struggle financing your Institute and of your lack of adequate help. I surely hope you will never leave our country.... Surely, the Lord has raised you up, as He did Lincoln to fight a good fight. Those physicians that oppose you are worse than 5th columnists and should be treated as such. (Beckton, n.d.)[xiii]

In her associations with the general public, Kenny develops alliances with non-scientists who subsequently become involved in discourse about medical practices in polio care. Thus, medical practices, as well as Kenny's if one wishes to make the distinction, are offered value within truth games that are unscientific in nature. This effectively evens the playing field, questioning the hierarchy of ideas that puts the truth generated in the laboratory above the truth generated through experience in the world.

The alliances Kenny develops with the public are taken account of in writing so that they can be used as intermediaries in exchanges for funding, as is evident in the following passage in a letter, likely written by Kline, representing the Board of the Kenny Institute, dated March 23, 1945:

> If the American Medical Association and the National Foundation ignore our efforts for a peaceful settlement of difficulties, then we propose to go before the public not only for financial support but for moral and emotional support as well. We believe that the public is familiar with the Kenny method, because here and there it has read and seen evidences of the success of this concept. (Board, 1945)

So Kenny submits her poliobody to science for experiments, she defends the same body against the iatrogenic effect that science has on it, bringing the poliobody experiencing iatrogenic effects to the people for judgement. The people value her work and challenge medical notions of the disease because they are *converted* by her demonstrations, that concretize the freedom she promises to provide the poliobody. Kenny positions the poliobody as a site that is thus textualized, not from documentary inscriptions alone, but by the "miracles" she produces at its surface.

The Miracles

Similar to the medical case presentations of the day, Kenny demonstrates her knowledge of what is happening with the poliobody by either surrounding a patient with posse of healthcare workers (usually physicians and nurses) or by parading the patient, clad only in a small diaper-like cloth to expose as much of his body surface as possible, out in front of an auditorium full of spectators. Kenny asks the patient to tell his polio story, or she tells it for him. Areas of paralysis are discussed. Then Kenny proceeds to lay her hands on the affected areas. She relaxes spasm and moves the affected areas. She talks with the patient about her own ability to move the affected areas. The patient then

gains the ability to do just what Kenny has suggested and proceeds to demonstrate her renewed skill.

Clemson Griggs, the superintendent of Clemson Brothers Inc. Hack Saw Blades in Middletown, New York, and former professional hockey player, reflects upon his experiences in a letter written to Kenny, likely in September, 1951:

> I'm just mulling over in my mind my 9 months in the University Hospital in Minneapolis and I cant [*sic*] help but chukle [*sic*] a little at the morning routine that you used to drag that girl-Ruth-and myself through. Boy how I hated being wheeled out in front of a bunch of poking and prodding doctors and you would say, "Now, Mr. Griggs you tell your story". You dont [*sic*] realize how hard it is to make a speech with no clothes on when you are lying flat on your back and looking at the ceiling. I consider that 9AM performance my small contribution to your work. I must admit that as a result of that I sure learned a lot about muscles and their work. I can still rattle off quite a few of them, but they are getting hazier all the time.

In the news, these demonstrations are depicted like the laying-on-of-hands seen in demonstrations of faith healing, as is evident from the following news clipping from the 1940's. In the clipping, there is a photo that shows Kenny raising her right hand as though she is gesturing for a girl to rise. The girl, dressed in the characteristic diaper cloth, stands on tip-toes with her arms outstretched to the sides. She looks down at Kenny. Kenny looks up with relaxed facial features, her mouth is closed, her face appears illuminated. The caption below reads:

> Thanks to the miraculous Kenny treatment for infantile paralysis victims, Carol Preiss, 5 (above), is able to walk again. A few minutes after Sister Kenny... encouraged Carol to stand at the Jersey City, NJ., Medical Center, the child walked and ran for the first time since she was stricken on September 4. ("Girl", n.d.)

Through her demonstrations, Kenny engenders a sense of wonder and possibility for the reclamation of the poliobody as something that is renewed rather than reconstructed. With them, she offers up to 'science' *and* to members of the general public,

a renewed body for validation. Her demonstrations convey undeniable empirical evidence to those inside and outside of medical science that there is value in her method. The value of it is hence expressed in documents recounting her 'miracles' on the body. The documents contain testimonials that are used as intermediaries by Kenny, her detractors and supporters. Kenny wishes to convey that her 'miracles' are modern in that they are associated with the particular forms of technology she has developed. This is evident in the following account by Kenny:

> Patient #1-Rita Neville was annointed [*sic*] for death and all hope of her recovery abandoned. At this stage she was transferred to my care and in a few hours started to improve. Three days afterwards her private doctor came to see her. I asked him what he thought of Rita. His reply was "that it had taken him back to the middle ages-the days of miracles had not passed." I explained to him that it was no miracle, but a knowledge of what was happening to the body and how to combat these happenings. (Kenny n.d. b, p. 2)

Adding to Kenny's accounts are those of parents, which support her argument that there is something to the technology she uses to produces such miracles.

> Little Phillip Fischer looks like a miracle child to his parents.
>
> The miracle to them is that today the 10-year-old boy can walk almost like the other children in his block. And after seven years of seeing him struggle along with the spasmodic movements of an infantile paralysis victim, it's no wonder that they think of Sister Elizabeth Kenny of Minneapolis, Minn., who put him on the path to normality, as a wonder worker.
>
> ..."She examined him right in our house, before about 10 other doctors," Mrs. Fischer recalled, "and told us Phil didn't have paralysis at all-but he just needed re-education of the muscles. He'd been sick for seven years and had had all the orthodox treatments. His legs were put in a case and then in braces, and it just didn't seem possible he could get any better."
>
> Now, Mrs. Fischer said, she don't see why Phillip shouldn't be a 100 per cent cure although it may take two or three years. [*sic*]...
>
> "It's really a process of relearning how to use and co-ordinate your muscles and of getting the nerve messages from the muscles through to the brain again," she (Mrs. Fischer) said. "According to Sister Kenny, many polio cases are really not paralysis at all but merely lack of coordination and loss of nerve control...". (West, 1944)

The Fischers later admit that they are under great "pressure" to present their son as a successful recipient of the Kenny method because much publicity is put on the boy and his parents hope to use his situation as a presentation of truth about the Kenny method (Fischer, 1943). [xiv] The truth value of Kenny's methods granted by parents had an impact on medical practices because parents, once aware of an alternative to orthodox practices, would question medical practices in a way they might not have previously. Beyond the statements of parents, though, validation from medical men was a most important currency in the networks of exchange around Kenny.

While Kenny is not able to get statistically significant data about her method from experiments, she *is* able to generate evidence that transforms opinions of medical men. Like those converted through religious epiphany, medical practitioners offer "testimonials" about the transformation Kenny elicits in them through her work directly on the poliobody.

Kenny solicits Dr. Bruce Chown, of Children's Hospital in Winnipeg, Canada, to repeat in a letter to her a statement of support he originally made in 1941, so that she can use the renewed statement at an upcoming meeting (she asks him to attend the meeting in person, but he cannot). Dr. Chown obliges and writes the following on October 28, 1945:

> Following a visit by Sister Kenny and her demonstration of her method of treatment that method was put into use in the Children's Hospital of Winnipeg. It is my opinion that the results obtained by this method are the best we have ever obtained. We have had no epidemic since 1941, but in all sporadic cases admitted since that time the same method has been used with the same good results. (Chown, 1946)

Kenny recycles statements, like that of Dr. Chown, over and over again, using

them as proof for the effectiveness of her work. There are also statements that Kenny does not recycle, ones that are more personal in nature. I do wonder how often a physician, after attending an educational session, responds to those running the session with statement like the one below, produced by Percival E. Williams, B.A., M.D. of Hamilton, Ontario, Canada, who writes on November 14, 1942: "Since having the great honour and pleasure in spending last Saturday afternoon with you, I have become one of your most ardent admirers and disciples." (Williams, 1942)

Even skeptics are converted. T.C. Kimble, M.D. and a member of the House of Representatives from Miltonvale, Kansas, writes on August 2, 1943:

> When I started to hear your expositions and to see your work, it did not make sense, as I am one of those trained in the old concept of Anterior-Polio...However, after about two days, I could see that you were getting results where we did not, and then it dawned upon me that the reason the orthodox group were not getting results was because we had an entirely wrong idea of it...After seeing from day to day your work and results I had to admit that we were wrong and you were right. I thank you all very much for the 'conversion of ideas'... (Kimble, 1943)

Indeed, some physicians concur that Kenny has discovered a *different* polio, one that had previously been invisible, constituting a new disease in relation to the old, medical conception of it. Herbert E. Hipps, MD. F.A.C.S., from Marlin, Texas, writes on April 13, 1942:

> I want to thank you so very much for being so nice to me on my visit, last week, to Minneapolis. I enjoyed it thoroughly, and I think it was the most beneficial and instructive two days I have ever spent in my life
>
> If you pardon the slang, I think you have "scooped" the medical profession in that you have found symptoms and visible findings in this disease, Infantile paralysis, that we had no idea existed....You have demonstrated to me a disease I did not know existed. (Hipps, 1942)

Kenny's live demonstrations, then, become the staple for her truth-generating

apparatus in the game of truth that she constructs in poliobody discourse.

Kenny is always in search of means to spread the gospel about her work; hence, she expresses her pleasure that her miracles can be conveyed via documentary films, which she identifies as proof for the effectiveness of her "newer science". The films are also registered as important by Albert Deutsch (1942), who reflects eminent medical men were listening to Kenny's ideas because "she had the facts and the films to back her up" In a letter to the Chicago Daily News dated April 19, 1945, written in response to an article titled "DOCTORS UNBIASED, SCIENTIFIC IN SEARCH FOR TRUE VALUE OF METHOD", published April 5, 1945, Kenny writes:

> Irrespective of what any doctor in Australia wrote in the year 1939, Dr. Fishbein and anyone else may see living proof of the value of the newer science of dermo-neuro-muscular therapy introduced by me for the newer concept discovered by me. This proof can be produced anywhere at any time in the documentary films Numbers I and II. In these films severe pain is overcome in three days, deformities combated, and full function restored to what would have been accepted as badly paralyzed muscles (by the old order) in two months. The patients wave goodbye to all treatment and hospitalization and walk out before treatment would have started prior to my visit to the United States. This evidence is no one's statement but living and undeniable evidence. (Kenny, 1945c)

It appears difficult for those who have direct contact with poliobodies to deny the truth value of *living and undeniable evidence*. There is something about the living flesh, once one works directly with the body, that has a truth of its own, made between the caregiver and the recipient of care. Interestingly, documented testimonials from nurses were absent in the archival material I reviewed. Perhaps I missed the letters written by nurses (two boxes were missing of the collection) or perhaps their opinions were not conveyed to Kenny in writing. But I speculate, the nurses were in no need to be convinced of her approach to the body, hence they did not have the same sense of

epiphany experienced by physicians. At any rate, Kenny's textualization of the poliobody is one that relies on the senses in a way that is thought of to be suspect in medicine, because science instructs modern physicians to test their sensory experiences against foundational ideas about the poliobody. Kenny submits inscriptions of her sensory experiences to science for evaluation and is deemed to express beliefs that can not be verifiably true within the scientific realm. Despite this rejection from science, Kenny insists her form of living proof has great truth value.

The 'True' Thing Starts and Ends With the Flesh

> Scientific diagnosis is for the laboratory technician; however, the clinical diagnosis is of paramount importance in the administration of early treatment, the conquest of pain and the abolition of deformities. (Kenny, 1946, p. 37)

Kenny, like Bacon, is an empiricist who takes as her starting point for the analysis of truth not the idea but the *thing* itself. While Bacon supports methods to examine objects of Nature via devices that form representations, which alleviate the possibility of mistaken perception and are isolated from the influence of kings and myths and sages, Kenny appears to trust her senses implicitly and she appears to engage herself fully in political processes in her search for validation. With this search, her domain of practice, as a missionary of sorts , is pushed beyond the walls of the clinic into public and moral realms in which her practices are depicted as truthful. It is from the public and moral realms that Kenny sustains her challenges to medical truth about the poliobody. These challenges, in turn, enroll others to circulate intermediaries related to Kenny's methods within medical discourse, hence in the realm of science proper.

Kenny thus engages in a form of clinical research at the Kenny Institute that is on the margins of science because her approaches to the poliobody, which question narrative

closures existing in medicine, make an impact on orthodox medical ideas and practices. Indeed, the Kenny Institute becomes a domain from which Kenny and researchers like Pohl, Cole, and Knapp produce documents to keep in circulation her concepts of the disease as a systemic event with peripheral symptoms ignored in mainstream medicine.

Dr. Pohl (1947) publishes one article in particular that is explicit in its support of Kenny's ideas about polio paralysis being a local event. In it, he indicates there are changes in skin sensitivity and composition, atrophy in adipose (fat) tissue, and spasm in muscles, which are not consistent primarily with disuse and are thought to have innervation from peripheral nerves only. Indeed, he notes spasm is present in those who have succumbed to the disease prior to the onset of stiffness from immobilization, when CNS innervation should cease to be an issue. Further tests for accuracy of these peripheral causes, he suggests, can be done through use of Kenny's methods, since no laboratory tests are sensitive enough to register those changes she identifies (Pohl, 1947). Clearly, Pohl trusts Kenny's senses and positions them as tools that can be used in the scientific realm.

In her 1946 text, "Physical Medicine: The Science of Dermo-Neuro-Muscular Therapy", Kenny notifies the reader that her work belongs in the realms of medicine and science, but she does not rely on physicians for a rendering of her poliobody. Instead, she presents the poliobody she discovers through her own processes of inquiry, which involve deep immersion into signs the poliobody emits and the interpretation of those signs with the polio patient. In her immersion, Kenny uses *herself* as a research tool, which is reflective of a form of Naturalistic inquiry often discussed in nursing literature

(e.g. Lincoln & Guba, 1985; Benner & Tanner, 1987; Tanner, Benner, Cheala, and Gordon, 1993). Kenny's form of inquiry, I suggest, is constructivist in nature. However, any efforts on my part to delimit her position on research, extrapolating how her methods and opinions are in alignment with established categories regarding the truth and the world as a form of philosophical paradigm, would be counter to my theoretical approach in this paper. I would argue that this likely is a form of confinement Kenny avoided because it might restrict her access to potentially productive roles.

In her productive roles, Kenny develops and puts into circulation intermediaries, like her resurrected poliobody. She starts and ends with the flesh, relying on a direct relation with the poliobody and its "living proof" that is not required in the production of intermediaries in medical science. The body as living flesh, hence, becomes the discursive entity that Kenny relies on to engage in truth games that were once part of science in North America during the polio years. One wonders if any others, trainees, technicians, parents, or physicians, possessed the type of highly refined sensory skill that Kenny had in her relation with the poliobody. Are these skills, like caring, innate or learned?

What is striking for me is the lack of discussion nurses engage in regarding Kenny's contributions and her very effective approaches to enroll others into her causes, despite the fact that there is some mention of Kenny's achievements in nursing history texts and a handful of journal articles. As a matter of fact, after canvassing co-workers, the only person who had heard of Kenny was an occupational therapist. Kenny's ideas about ability are given some weight in rehabilitation science. Of course, many polio survivors and their families remember Kenny and the value of her methods. Her methods

freed them from the pain and restriction of the disease *and* some of its orthodox treatments. Their experiences with Kenny's methods are a part of them, a part of their past.

This chapter, indeed the entire paper is an attempt to keep Kenny's challenges circulating. Is truth the daughter of Time? Perhaps it is, if one considers that Time itself is a discursive entity and history is a construction used to create figures that give shape to Time's passage. The poliobody as a figure, a body as living flesh, is an entity, in North and Central American contexts, that now belongs in the past. Without its presence, it is very difficult to maintain the truth about Kenny's ideas, for her proof depends directly upon exchanges of intermediaries around the poliobody as a material site.

An Ending

Elizabeth Kenny makes a habit of offering a history of her work when she is asked to provide proof about its benefits by those in medicine, whom she identifies as being part of the orthodoxy. In her history, she includes a discussion about how she wins the favour of enlightened medical men through providing them with undeniable evidence. Her evidence comes from many sources: direct demonstrations on the poliobody; supportive statements made by medical witnesses, primarily those published in journal articles; case examples; and, from 1943 onward, filmed accounts of her work. As I mentioned in Chapter 5, soon after some of Kenny's methods--her use of hot packs and early mobilization--are "taken up" as mainstream practices in medicine, the need for her to provide evidence for her concept on the whole becomes an issue, not for those working in medicine, but for Kenny herself. She has a point to make: her work constitutes a *revolution* in medical polio rehabilitation *and* it is approved by medical scientists, as this letter to The Gonzales Warm Springs Foundation, dated May 4, 1950, suggests.

> Dear Sirs:
> On October 11, 1945, I received a letter from your President, Mr. Ross Boothe, the contents of which no doubt you have a copy. At that particular time the revolutionary concept concerning the symptoms of the disease poliomyelitis presented to the medical men of America upon my arrival in this country, had not been scientifically investigated and proven.
>
> Doctor Wallace Cole informed me that it would take ten years to properly investigate my theory, and either confirm or deny it. The ten years have now expired and a thorough investigation has been made concerning the five points which Doctor Cole thought advisable. I am forwarding to you under separate cover the results of this research which I am pleased to say to me is most satisfactory. I am sure you will agree when you read the contents of the reports collected from different areas throughout the United States of America and elsewhere.
>
> You will also note in the report, written in French and translated into English, from Brussels, that microphotographic material is now available proving that my concept that the disease is a systemic disease, is accurate; and that an Atlas is now ready for printing...

> Science having proved my revolutionary theory concerning the symptoms of the disease to be correct, I am now in a position to cooperate with anyone desiring such cooperation, and will give them all the help I can. (Kenny, 1950)

Kenny ends her story, as do most of her biographers, noting that she has been accepted into the arena of science. By whom it is not clear. With this admittance, she proclaims victory over individuals in medicine who cannot see the truth about her methods. Kenny's position is very ironic. She wishes to cooperate with "anyone" by 1950, even providing laboratory evidence to back up her concepts. However, those in mainstream American medicine, especially those affiliated with the influential NFIP, adhering to CNS notions of polio rather than systemic or local notions of the disease, are not in any mood to cooperate with Kenny. In the opinion of the NFIP, she provides medicine with a few good practices, but no substantial rationale for the effectiveness of those practices because her concept of the poliobody is faulty. In addition, her demeanor is un-scientific and her continued criticisms of the NFIP are considered unfounded.

The NFIP has this to say in a statement made June 1, 1948 by Hart E. Riper, M.D. Medical director of the NFIP, to the Committee on Interstate and Foreign Commerce of the United States House of Representatives, involved in an investigative process requested by Kenny to clarify her contributions to polio treatment in all stages of the disease:

> We believe the improvement that has come about in the field of early care of poliomyelitis, no matter by what name the treatment is called or who taught its practitioners to give it over what period of time, is fitting tribute to Miss Kenny, who certainly deserves the credit for calling it to the attention of American Medicine. (Van Riper, 1948, p. 3)

Does Kenny simply bring the use of hot packs and early mobilization to the "attention" of American Medicine, or does she introduce a complex, viable and holistic

system to address paralysis, changes in mobility and changes in function in polio for which American Medicine has no means nor interest to understand?

These answers are virtually impossible to find with an exploration of the past. As I have mentioned, the past is not like a container holding the truth we seek today. And I do not venture into any other stories in this paper to come to conclusions about who is right, about whose ideas and practices are most truthful and valuable. As Carolyn Steedman (1996) notes, "history can never provide us with the comfort of a finished story." (p.111) What I try to provide here is an ending to the stories I present earlier, hoping that this ending will be questioned and provide inspiration for other (his)stories about Kenny and her work.

The first story conveys Kenny's life, with its beginning, middle, and end, devoted to the development of her methods of rehabilitation and their accompanying concept of the poliobody. The story highlights the efforts Kenny makes to promote her ideas and practices; she seems to do more in one year than most of us might do in a lifetime! It also discusses Kenny's experiences with characters who support her and those who reject her. Medical men frequently appear to be duplicitous in this story. They are often depicted to be empire-building and they appropriate some of her work without giving her due credit.

The second story takes account of the conditions in medical discourse that support the existence of the medicalized poliobody. This type of poliobody emerges as a result of war against the poliovirus, one that scapegoats the poliovirus for paralysis encountered in association with the disease. The medical poliobody, one that is decidedly modern, is textualized using scientific forms of inscription, which are offer up accounts of the poliobody that require foundational ideas about its constituents developed in the laboratory. These foundational ideas provide narrative closures that limit medical practices. The practices are developed for a poliobody that has been stripped of its capacities by the poliovirus and is then offered capacities *of a particular kind* developed

in medicine. Hence, medical practices offer up an ironic confinement of the poliobody and its possibilities in the name of fighting the poliovirus. The progressive medical acts of immobilization and re-construction thus limit the freedom they purport to provide.

The third story explicates freedoms that Kenny's practices bring to the poliobody and those associating around it, such as caregivers and family members. In this story, the poliobody is an entity with unlimited capacities, ones that can be re-discovered, rather than being re-constructed. Kenny's notion of poliobody capacity soon becomes an ethos in medicine and some of her practices, like the use of hot packs and early immobilisation, are taken up within the field. However, most of her other practices are marginalized in medicine because they are rationalized using her concept of the poliobody, which is not in alignment with medical ideas.

Although in this story Kenny is not wholly successful in convincing the medical orthodoxy to reconfigure the poliobody, the practice of her methods influence conceptions of the roles that others take in association with the poliobody. Survivors, themselves, identify with notions of innate capacity that offer them hope and direction. Parents of polio survivors take up formal care giving roles and can be heroes positioned to question medical authority. And Kenny takes up three roles, as "discoverer", "savior", and "plaintiff", which legitimize her inductive notions of the poliobody that valorize knowledge of it as living flesh rather than a product of the laboratory.

The new roles engendered by Kenny's methods in poliobody discourse sustain Kenny's legitimacy outside of medicine and they sustain her influence inside of medicine, despite the fact that her ideas about the poliobody are determined to be faulty. However, Kenny's acts in new roles ultimately offer up confusion for polio survivors and the general

public. They seek answers about the effectiveness of Kenny's methods that cannot be attained because the methods are 'watered down' to a mass of unregulated practices and they are associated with forms of capacity that are not offered structure the way that capacity is re-constructed in medicine.

The forth story examines the construction of truth within the networks of individuals who associate around the poliobody. In this story Kenny is the primary figure who engages in forms of exchange with other individuals. To those in medicine, she offers her textualization of the poliobody and her methods of treatment, which are inspected, rendered experimental, re-figured and taken up as part of medicine, in exchange for funding, institutional space, and notoriety. To those in the media and the general public, as well as many in medicine, Kenny offers up miracles, which are undeniable evidence for the effectiveness of her work. The exchanges portrayed in this last story are productive, not because one definitive formulation of truth about the poliobody is achieved as a result of them, but because they maintain the currency of Kenny's methods and ideas. Also, they offer up to the poliobody forms of freedom not seen before. Indeed, these forms of freedom extend to the way the poliobody is constituted so that it can be seen as an entity with many truths. Ironically, the potential for many truths about the poliobody does not appear to be an option for Elizabeth Kenny. For Kenny, the truth about the poliobody is found in science.

The ending I offer here is related to the irony of Kenny's insistence that she has been accepted into science. In making her assertions, Kenny appears to be unaware of the fact that her acceptance into science has indeed come, not because of the quality of data

she provides, nor because of her astute scientific observations, but because of the currency her practices are offered in poliobody discourse.

Kenny's methods are considered so valuable in poliobody discourse because of the freedoms they engender. These freedoms I explicate in this paper. Kenny's practices, I suggest, open up a place in poliobody discourse where there is freedom to see medical science as something that is permeated by things thought of as outside its scope in a 'modern' world: personal experiences, unmediated perceptions like touch, and even miracles. This breach in the boundaries constituting science is made as a result of exchanges and the development of alliances in the poliobody discursive field that involve *practices* directly with the body as living flesh, not ideas which transcend the context habituated by the corporeal body.

Kenny's practices involve the polio survivor, for example, in a process of rediscovering self-capacity that makes innate ability technological, allowing freedom from paralysis. Family members are also involved in the implementation of Kenny's methods, so that they too can be portrayed as experts and heroes. In a way that is spiritual and very personal, physicians are enrolled in Kenny's work, for she helps them see a body, through processes of conversion, that did not exist in their scientific understanding previously. And, finally, physicians and nurses become involved in the implementation of Kenny's practices, which embrace intuitive and inductive forms of knowledge previously diminished in the provision of polio care.

I do not attempt to follow these possibilities to their conclusions, to see if the freedoms of those affected follow trajectories one might expect to occur. In the case of the human body, trajectories that map with predictability what has happened and what will

happen to the body are always open to questioning. Postpolio syndrome is an example of the very difficult and unexpected turns the body can take. Instead, I explicate the unpredictable factors involved in existence of the poliobody and the practices related to it, for it is the difference and unpredictability of Kenny's work that leads to its significant impact in discourse. In doing so, am I writing a nursing history?

Nursing histories largely exclude Kenny and her work from the lineage constituting professionalization, unlike Florence Nightingale for example, who is celebrated as a mother of modern nursing (Nelson, 1997). I am not attempting to insert stories about Kenny into the field of nursing as though they are an unwritten element of nursing lineage. Rather, I explicate the freedoms influenced by Kenny's work as though they are important for nurses to reflect upon, although they operate in a discursive sphere outside of Nursing proper. Primarily, I hope the reader might reflect upon how knowledges of the body emerge in nursing and medical discourses, understanding that these same knowledges are inextricably linked with power that is an effect of exchanges within associations between humans and non-humans in discourse.

I suggest Kenny's knowledge of the body is associated with practices enacted on the corporeal body, which is a contingent entity that does not take well to being written up, although it might be textualized as something with the potential to be very predictable. One can see that in nursing today, there are moves to make the body that nurses work with predictable, while at the same time there are efforts to explain the body as an entity in a state of evolution (Fawcett, 1995; Marks-Maran & Rose, 1997; Parse, 1981; Parse, 1999). Accounts of the *predictable body* I draw upon in my practice depend upon foundational ideas of it as a normatively bounded, corporeal entity generated in

medicine, inspired by experimental and laboratory analysis. For example, I determine that an individual who presents with disorganized speech, inattention, confusion, and hallucinations is more likely to have a diagnosis of delirium than dementia if she has shifting levels of consciousness. To test for delirium, I make recommendations for bloodwork and urinalysis (ordered ultimately by a physician) because I adhere to a medicalized notion of the body and the physiological determinants of disease in this context.

Converging with the predictable body are my accounts of the *body in evolution*, that are inspired by human sciences (including psychodynamic theories of medicine), which explicate the body in time, place and space, considering its influences, sustenance, threats, and connection with the 'other'. Considering the body above as a one in evolution, I attempt to take account of the individual's experience; her sense of self, safety, time, and place; her life stories; her conception of family; and her understanding of my presence in relation to her.

Nurses have, since the development of nursing diagnoses in the 1950's, engaged in textualization of the body in evolution; but they are obliged, since they are recognized as health scientists, to also consider the normatively bounded corporeal body emerging from medical science (Fawcett, 1995; Marks-Maran & Rose, 1997; Parse, 2000). Nursing theories about the body are thus infiltrated by medical theory and they have, accordingly, the potential to be constrained by narrative closures in medical discourse. Therefore, I propose here that more nurse inquirers engage in Foucauldian historical analysis to explicate notions of the body in nursing discourse. Constructing histories, nurses are freed to take up theoretical standpoints that are not constrained by the rules constituting the

body in science. Such explorations of the body may serve to highlight nursing knowledge formerly censored, yet often hidden within the narratives of science because of narrative closures in the field.

Historians have the freedom to write in the un-scientific, literary realm, so they are able to examine narrative closures about the body, not necessarily to obliterate these closures, but rather to question them. In questioning narrative closures, nurse historians will add to the dialogue about alternative views of health, illness and the practices associated with them that are directly related to the corporeal body. Nurse historians, thus, can explain how stories constitute the body the same way stories make history.

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Kenny, E. (n.d.b). Document for the attention of Doctor G. O'Hanlon and Associates (hand-written addition: "and the Board of Directors", circa 1948, Elizabeth Kenny Collection, Minnesota Historical Society, Minneapolis MN., 143.E.10.4(F), box 2.

Kimble, T. C. (1943, 8/2). Dr. Kimble is member of U.S. House of Representatives and a physician who attended a Kenny short course; a testimonial letter. Elizabeth Kenny Collection, Fryer Library, University of Queensland, St. Lucia, Australia. 32048(35832).

Kline, M. (1946, 1/7). Draft report to Elizabeth Kenny Institute Board of Directors, including a history of Kenny's work. 10 pages. Elizabeth Kenny Collection, Minnesota Historical Society, Minneapolis MN., 143.E.10.4(F), box 2.

Lahz, J. R. S. (1935, November 5). Letter by John R. Lahz to R. Cilento, Director General of Health and Medical Services, Brisbane requesting reports and

complaints re: Kenny as part of the Queensland Royal Commission investigation. Raphael Cilento Collection, University of Queensland, St. Lucia, Australia, UQFL44.

Lahz. J. R. S. (1935, December 4). Letter by John R. Lahz to anonymous recipient(s) regarding requirement to testify before the Commission, if requested to do so. Raphael Cilento Collection, University of Queensland, St. Lucia, Australia, UQFL44.

Larned, A. E. (1946, January 4). Letter written to Floyd McGriff, a representative for 9 weekly newspapers in Detroit, MI, in response to questions asked by McGriff regarding length and types of Kenny methods courses offered, the locations in which the 'Kenny Treatment' is offered, and the cure-rate for same. In the letter, which is a copy, Larned notes he cannot offer information about cure-rates, as the infliction is not curable. But, he does describe the structure of work for Kenny technicians, who offer direct care to those with polio and also train and oversee the work of "lay women"--"Hot Packers"--500 of whom are paid by the local chapter of the NFIP to assist with hot pack application. Elizabeth Kenny Collection, Minnesota Historical Society, Minneapolis MN., 143.E.10.6(F), box 4.

McDonald, A. J. (1944, December 10). Speech by Dr. Alice J. McDonald to the Kinsmen Club of Vancouver. The speech is part of a larger presentation regarding Kenny and her methods, likely offered by McDonald to the same club. Elizabeth Kenny Collection, Minnesota Historical Society, Minneapolis MN., 143.E.10.6(F), box 4.

McFarland, W. (1942, July 16). Opening remarks on Sister Kenny's work and her contribution to the field of physical medicine. Elizabeth Kenny Collection, Minnesota Historical Society, Minneapolis MN., 143.E.10.6(F), box 4.

McGriff, Floyd. (1946, January 7). Letter to Sister Kenny from Floyd McGriff, a representative for nine weekly newspapers in suburban Detroit, MI, regarding training for the Kenny method, NFIP-style, in comparison with Kenny's 'original' concept. McGriff sends to Kenny, the correspondence he has with Mr. Abner E. Larned, Chairman of the Wayne County Chapter of the NFIP, regarding data about training in the Kenny technique for physicians, physiotherapists and nurses. Elizabeth Kenny Collection, Minnesota Historical Society, Minneapolis MN., 143.E.10.6(F), box 4.

National Foundation for Infantile Paralysis & National League of Nursing. (n.d.). Accompanying publication for *Filmscript on nursing care in poliomyelitis.*, circa 1952. In this publication, the nature of and nursing care of poliomyelitis is outlined using notions of the disease and its treatment generated by the NFIP. Elizabeth Kenny Collection, Minnesota Historical Society, Minneapolis MN., 143.E.10.3(B), box 1.

O'Brien (1936, 04/06). Dr. O'Brien writes this letter in response to Queensland Commission questions regarding Kenny's methods. His answers to questions asked are brief and vague. Raphael Cilento Collection, University of Queensland, St. Lucia, Australia, UQFL44.

O'Connor, B. (1944, Feb. 15). Letter by Basil O'Connor, President of the NFIP, to W. W. Michaels regarding an editorial in the *Tulsa Tribune*, which is critical of the stance taken by the NFIP regarding Kenny's methods. In the letter, O'Connor notes, "Someone has well said that ignorance does not consist of not knowing, but of known what "ain't so." Elizabeth Kenny Collection, Minnesota Historical Society, Minneapolis MN., 143.E.10.4(F), box 2.

Pascoe, B. (1939, May 17). Letter by B. Pascoe to A. E. Pye, then General Superintendent, Brisbane and South Coastal Hospitals, issuing permission to treat daughter, Violet Mary, at a Kenny clinic within an unnamed hospital. Raphael Cilento Collection, University of Queensland, St. Lucia, Australia, UQFL44.

Physician a (1936, Feb. 13). Letter by anonymous a to Queensland Commission resisting disclosure for fears it will breach of confidentiality. Raphael Cilento Collection, University of Queensland, St. Lucia, Australia, UQFL44.

Physician b (1935, Nov. 6). Letter by anonymous physician stating resistance to pass judgement on Kenny methods within parameters of Queensland Commission questions. Raphael Cilento Collection, University of Queensland, St. Lucia, Australia, UQFL44.

Queensland Commission (1936, February 20). Letter sent on behalf of the Commission for general distribution to physicians regarding Kenny's methods. Raphael Cilento Collection, University of Queensland, St. Lucia, Australia, UQFL44.

Radio Address (1943, August 18). Kenny was invited to make the address by Columbia Broadcasting System because of polio outbreaks. Letter of introduction by Edmund R. D'Moch, United Press Associations, dated August 23, 1943. Elizabeth Kenny Collection, Minnesota Historical Society, Minneapolis MN., 143.E.10. 5(B), box 3.

Sister Elizabeth Kenny Institute. (n.d.). Fragments from pamphlet about the institute, circa 1952. Elizabeth Kenny Collection, Minnesota Historical Society, Minneapolis MN., 143.E.10. 3(B), box 1.

Statement of Objectives. (1946, December 12). Statement of Objectives for the Elizabeth Kenny Foundation, published by the Foundation. Elizabeth Kenny Collection, Minnesota Historical Society, Minneapolis MN., 143.E.10. 3(B), box 1.

Stringer, N. (1939, June 19). Telegram from N. Stringer of Cushnie Wondai, Australia, to the Medical Superintendent Brisbane General Hospital regarding permission to treat daughter, Meryl, using Kenny methods. Raphael Cilento Collection, University of Queensland, St. Lucia, Australia, UQFL44.

Superintendent (1935, April 11). Letter to Mrs. Muscio from likely from the medical superintendent in Queensland, discussing success claims related to the Kenny method. The author notes Kenny's current patients are 'ill chosen', hence they are not responding to her treatments. Raphael Cilento Collection, University of Queensland, St. Lucia, Australia, UQFL44.

The Kenny Technician: Her Training and Her Work. (n.d.) A section in part of a larger brochure, circa 1951, published by the Elizabeth Kenny Institute. In the brochure, it is noted that the nurse trainee must take a one year course at an accredited school of physiotherapy in addition to the three "periods" of training required prior to engaging in a practicum. Kenny trainees with physiotherapy backgrounds are not required to take courses related to nursing. Elizabeth Kenny Collection, Minnesota Historical Society, Minneapolis MN., 143.E.10. 3(B), box 1.

Training Course for Technicians in the Theory and Management of Infantile Paralysis According to the Technique of Sister Elizabeth Kenny. (n.d.) Elizabeth Kenny Institute: Author. Elizabeth Kenny Collection, Minnesota Historical Society, Minneapolis MN., 143.E.10. 4(F), box 2.

Van Riper, H. E. (1948, June 1). Statement (copy) of Hart E. Van Riper, M.D., medical director the "National Foundation of Infantile Paralysis, Inc". before the Committee on Interstate and Foreign Commerce of the United States House of Representatives on H.R. 6007 and S. 2385. Elizabeth Kenny Collection, Minnesota Historical Society, Minneapolis MN., 143.E.10. 4(F), box 2.

Wilkinson, H. (1940, March 8). Letter of Introduction by Dr. Herbert Wilkinson to Dr. Henderson at Mayo Clinic, Rochester Minnesota, outlining the benefits of the Kenny method, its validity and its possibilities. Elizabeth Kenny Collection, Fryer Library, University of Queensland, St. Lucia, Australia. 32048(35832).

Williams, P. (1942, Nov. 14). Letter by Dr. Percival E. Williams of Hamilton, Ontario, Canada, to Kenny. In this letter, Williams announces his status as a 'disciple' of Kenny after seeing her demonstrations in a short course. Elizabeth Kenny Collection, Fryer Library, University of Queensland, St. Lucia, Australia. 32048(35832).

Appendix A

White's Problematization of Histories according to Jenkins

1) All histories are ideological:

There is no pure rendering of history that is not somehow shaped by ideological forces. Histories and histories are "suasive"; they are meant to persuade. "History is always history for someone, and that someone cannot be the past itself for the past does not have a self, so that any history which considers its particular type of discourse (its *species* type) as identical to history *per se* (its *genus*) is not only ideological, but ideological nonsense" (Jenkins, 1995, p. 22).

2) All histories are *historicist*

Historicism is defined in many ways. In the context of Jenkin's argument, it can be seen to be a belief that composition and value of texts, social structures, and human events are to be best understood in the context of their historical development. (Dancy and Sosa, 1993) There are identified different camps of historicists. One suggests that an understanding, even mastery, of the past illuminates the present day position of humans and the analysis of human affairs. The other suggests that there is no way to understand the past in its own terms so that we can not use it as a ground to understanding the present, yet our understanding of our historical context is absolutely necessary. So, the past is seen as relative to the present. This form of comparison in the postmodern positions the historical story in a context that includes time, but more importantly examines configurations of subjectivity, power, and knowledge in given temporal contexts.

Hayden White notes they both occur, although there are some perspectives that foreground their historicism and others that do not. Those who do not are seen by White to be in denial. "All historians have to shape their material somehow vis-a-vis the present imperatives of narrative in general, and White argues that in the very language historians use, they subject the past to the kinds of 'distortions' that historicists impose upon their material in a more explicit way" (Jenkins, 1995, p. 22).

3) All history is interpretive and never literally true.

In a narrative form, historians bring together information gathered to form an account around events, dates, agents. They encode data to construct stories which grant the kind of meaning to what has happened in the past that is usually only granted to literature and myth. Narrative accounts are figurative and allegorical, although they refer to 'facts', people who have lived, and events that have occured, however, the drive to empiricism in the modern world conceals this fact. "This is well known to those who work in the margins - say in hermeneutics where historiography is seen less as a decipherment than as a 'translation' and a 'carry over' of meaning from one discursive community to another...In other words, history as a discourse is not an 'epistemology'" (Jenkins, 1995, p. 24).

4) Because an iconic/narrative account is always a figurative account, an allegory, then history cannot have a 'true' correspondence in ways traditionally seen as *mimetic* or *empirical*

In constructing a narrative, the historian matches up the statements and chronicle he or she wishes to endow with meanings of a certain kind to plot structures (emplotment). Without this formation, the statements and chronicle as 'facts' of history, lack meaning. The credibility of the result(s) are found to correspond with currently constituted and useful facts which are inextricably linked linguistically to historical and cultural social formations. Empiricism is most unsound when it is not acknowledged that "narrative *constitutes* the grounds whereon one decides what shall count as a 'fact' in the matters under consideration in the first place" (Jenkins, 1995, p. 26). 'Facts' do exist and they are acknowledged within narrative structures, but they do not offer the 'truth'. Events, objects, agents can be examined over and over again, in a process of 'endless deferments', as there is an attempt to be more "faithful to the facts". (Jenkins, 1995, p. 24) There is then a critique of those who constantly search for the facts and question sources from which they have been drawn because this process of empirical analysis is prone to entropic deferral, yielding a theoretical place that is no more close to the mimetic 'truth'.

Appendix B

Modes of emplotment

1. Romance: Hero/heroine is victor over world of experience.
2. Tragedy: Protagonist falls from position of moral repute and readers gain insight into how not to do the same.
3. Comedy: In context of festive occasions, hope is found for man reconciling between forces of social and natural worlds.
4. Satire: Views hopes, possibilities and truths of Romance, Comedy, and Tragedy ironically, rejecting the ability of human consciousness to apprehend adequately the world and its happiness. (sources: Jenkins, 1995, pp. 148-173; White, 1973, pp. 7-38)

Modes of Argument

1. Formist: historian classifies objects in the field of study according to their "class, generic, and specific attributes assigned", giving them a label to confirm their distinctiveness. The unique agents, acts, and agencies that constitute "events" becomes a focal point of analysis, but it is not the "'ground' or 'scene' against which these entities arise", so formists disperse rather than integrate elements of the historical narrative, which organist, and mechanist arguments do (White, 1973, p. 14).

2. Organicist: historian depicts "particulars" identified in the historical field (individuals and individual events) as parts of the whole. Individuals are seen as parts of an aggregate that is greater than, "or qualitatively different than", the sum of its parts (White, 1973, p. 15). The analysis usually has in mind "integrative structures" as goals, e.g. "the nation", or "the culture" (White, 1973, p. 16). Organists do no adhere to the idea of universal laws and causal relationships. Instead, they refer to "principles" or "ideas" are seen to inform individuals and the whole, "prefiguring the end toward which the process as a whole tends" (White, 1973, p.16).

3. Mechanist: historian identifies "acts" and "agents" within the historical field "as manifestations of extrahistorical 'agencies' that have their origins in the 'scene' within which the 'action' depicted in the narrative unfolds" (White, 1973, p. 17). Data about an individual, group, law or social process is most important as it is seen in relation to the class, species, or generic typification that informs its existence. Mechanists identify the laws that govern history and determine the specific nature of those laws.

4. Contextualist: historian explains events by determining the "'context' of their occurrence". The reason and nature of events is comprehended through an examination of their relation to other events occurring anywhere and everywhere within the web-like "historical space". (p. 18) The historical 'space' or field appears at first to lack elements of unity and primary structure, so it is the job of the contextualist to explain, starting with one element of any dimension in the field, then tracing its links to other elements, how relationships between agents and agencies offer such unity and structure as well as an explanation for how things happened the way they did. Contextualists replace the rules of mechanism and organicism with relationships that are seen to exist in particular times and places as the ground for understanding, "the first, final, and material causes of which can never be known" (White, 1973, p. 18). Threads that link the event under study to other events are traced backward for "origins" and forward for "'impact' and 'influence' on subsequent events (White, 1973, p. 18).

(sources: Jenkins, 1995, pp. 148-173; White, 1973, pp. 7-38)

Appendix C
Table for a Story of Sister Kenny

Formative Years 1880-1909 p. 53	• Born September 20, 1880 *Non-nursing Education*: • Between 1886 and 1895, attends primary school. • Attains an education in music and religion at home by mother. • Kenny studies knowledge of anatomy and physiology with older brother, William. *Initial Jobs:* • By 1905, applies to offer religious instruction to children. ▪ Sells vegetables on commission between 1907 and 1909. *Initial Nursing Training:* • Between 1909 and 1911, trains as nurse. • Trains with a Midwife from Guar and perhaps did some slum-nursing in Sydney (no records of this, just Kenny's verbal reports). *Initial Nursing Work:* • Bush nurse in 1911, living in remote areas of South Queensland. • Kenny's advisor is not another nurse but Dr. Aeneas McDonnell, a well respected generalist and future primary medical supporter in Australia.
The Discovery 1911-1915 p. 54	• In the Autumn of 1911, Kenny encounters a girl with polio symptoms, for which there are no known cause and no specific treatments. • Kenny devises a system of hot packs successful for relief of the same symptoms. • Kenny then initiates hot pack treatment with five more patients and no residual paralysis is identified. • She discovers later in consultation with McDonnell that practices she engages in are unorthodox. • Kenny opens a "cottage hospital", St. Canice's, in 1911 at which she develops system of exercises in acute stages to prevent deformity through contractures in addition to the hot packs. • Sold St. Canice's in 1915.
World War One 1915-1919 p. 55	• Kenny enlists in the Australian Army Nursing Corps, using letter from McDonnell attesting to her competence as a nurse • Kenny sustains a leg wound from shrapnel in 1915, subsequently becoming an escort nurse on troop ships. • Finishes probationary period at Southall military hospital and is promoted to the rank of Sister on December 20, 1916. • At end of war in 1918, Kenny becomes a charge nurse at the Enoggera Army barracks outside of Brisbane. • January, 1919, Kenny contracts myocarditis, leaves the army and returns to home of her parents in Nobby.

Back Home 1919-1930 p. 56	• Kenny convalesces and takes a leadership role in local branch of the Country Women's Association of Australia. • May 1926 Kenny patents a stretcher she creates for a neighbourhood child at the scene of an accident, the "Sylvia", proceeds from which she uses for personal and professional expenses. • Kenny adopts a young girl named Mary Stewart in 1926. Near 1930, Kenny takes up the role of nurse once again, offering up her unique brand of polio care.
Townsville Clinic 1930-1933 p. 57	• The Townsville clinic, a free treatment site, opens in 1930 for those afflicted with poliomyelitis, cerebral diplegia, and birth palsy in the backyard of a house in Townsville, Queensland. • Kenny adds exercises in warm water to her complement of strategies. • In 1933, Dr. Raphael Cilento, Commonwealth Health Officer, scrutinizes the methods. • Cilento recommends a 6 month trial of her methods to test for safety and efficacy. • State funding begins for Kenny's methods.
Elizabeth Kenny Clinic and Training School 1934-1936 p. 58	• Sister Kenny's Experimental Muscle Re-education Clinic, opens on March 1st, 1934. • June 1934, during polio outbreak, Elizabeth Kenny Clinic and Training School opens in Brisbane. • In 1935, a clinic opens in Sydney; in 1936 another clinic opens in Toowoomba. • The clinics staffed mostly by nurses, supervised by Kenny under the guidance of physicians. The clinic openings brought press coverage favourable to Kenny.
The Commission 1935-1938 p. 62	• October 1935, a committee of eight physicians, later the Royal Commission, begins an investigation into Kenny's methods. • The Commission engages in investigation via reports and personal testimony, deliberating for twenty six months. • New Years day January, 1938, the Commission submits its report (summary published in the British Medical Journal on February 12, 1938). • The Commission finds that Kenny's treatment is much like orthodox treatment, except that she advocates for mobility in early stages of the disease, which is contraindicated. • The Commission also notes that Kenny's view of potential in polio survivors is possibly harmful. • Thus, the Commission seeks more authority over Kenny clinics, noting that they be "placed under the control of physicians. Despite the Commission report, the public in general remain sympathetic to Kenny and her clinics remain open. As a matter of fact, 5 *more* open in Australia during 1938.

England and Other Departures 1937-1938 p. 66	• In 1937, publishes her first text book entitled, *Infantile Paralysis and Cerebral Diplegia: Methods Used for Restoration of Function.* • April, 1937, Kenny travels to London upon request of a wealthy couple to treat their spastic baby. • Dr. Menzies organizes funding for an experimental Kenny unit at Queen Mary's Hospital for Children at Carshalton. • Kenny's methods once again are under scrutiny. • Kenny was also asked by parents to go to Paris and Warsaw to treat children or refer children for treatment in Carshalton. • Kenny's mother, Mary Kenny senior, falls ill, eventually passing away, prompting Kenny's return to Australia. • While in Australia again, Kenny is introduced Mary Stewart Kenny to technician training. • Kenny opens another clinic, this time in Newcastle, New South Wales. • In England, Kenny's work also goes ahead and she returns to Carshalton. • October, 1938, The British Medical Journal publishes a report, submitted by the London County Council after their observations at Queen Mary's Hospital, which is in favour of Kenny's practices. • Abandonment of immobilization is given credit as a useful concept.
War and New Horizons 1939-1945 p. 68	• 1939 brings cutbacks in staff and funding due to war effort and the Brisbane clinic is closed for a time. • A small number of medical supporters spearhead an effort to send Kenny to the USA so that she can continue her work in a nation not yet encumbered with the costs of war. • Kenny receives state funding to take the journey.
Arrival 1940 p. 72	• April 6, Kenny, aged 59, arrives in San Francisco, accompanied by her daughter. • Kenny presents her work in New York, Chicago, and at the annual American Medical Association meeting, but it is not offered support. • Kenny meets Drs. Henderson and Krusen at the Mayo who introduces her to those at Gillette. • At Gillette State Hospital in Minneapolis/St. Paul, Kenny meets Drs., Cole and Knapp, impressing them and others with her results. Practices change at Gillette subsequently, so that splints and immobilization are abandoned in favour of heat and movement early in the disease. • Kenny then meets Pohl at the City hospital and impresses him with her work with Henry Haverstock. • Sets up "Station K", the Kenny ward at Minneapolis General Hospital and soon afterward, a seventeen bed ward at University of Minnesota Hospital.

New Allies and New Enemies 1941 p. 73	• Knapp, Cole, and Pohl become "mediators" between Kenny and mainstream medical world offering a positive report of her work in June of 1941 • Teaching of Kenny's methods become an issue; Kenny is determined not to be fit to teach her ideas without supervision after an assessment by the Kendalls. • Interest in Kenny's techniques continue, though, and she and her technicians give presentations throughout North America. • As a result of these presentations and use of Kenny's methods, parents hence become involved in acute polio care in a way that they had not previously. • The press maintains great interest in Kenny and supports her, heavily covering issues related to her fight against the doctors until 1945, when there begins less coverage.
Another Committee Inquiry 1941-1942 p. 76	• Kenny publishes her unedited second textbook, *The Treatment of Infantile Paralysis in the Acute Stage* in 1941, which is not well received. • Kenny's demonstrations remain a route to legitimize her practices, which are accepted as valuable by Louise Plastridge of Warm Springs, Georgia. • The proposed use of Kenny's methods at Warm Springs and the approval of NFIP funding to run Kenny clinics in Minneapolis are contentious because never before has the NFIP endorsed a technique not proven (even partially) by medical science. • The Committee on Research for the Prevention and Treatment of After-Effects, was struck by the NFIP to address this issue of legitimization. • In November, 1941, there is hot debate between the committee's members as to the scientific validity of the Kenny's methods. • Despite ongoing conflict and resignations, on December, 3, 1941, the Committee on After-Effects agrees unanimously on a highly favorable statement about Kenny's work. • The AMA and the NFIP heavily publicize the committee's findings. • Fortifying Kenny's legitimacy, Swartz and Bouman, prove the existence of spasm in muscles affected by polio and published their findings in the July 18th Journal of the AMA, 1942. • The NFIP then publishes a book called *The Importance of Research,* which links Kenny's ideas with emg's. • As Kenny's work becomes more accepted, it moves into the mainstream of polio rehabilitation, but it does so in such a way that it is watered down. • Since many elements of her work do not meet scientific requirements for truthfulness, they are disregarded by practitioners. • Kenny's methods thus become an *augmentation* to traditional forms of therapy in most sites outside of Minneapolis. • The addition of Kenny's practices in any form bring on immediate pressure for the proper training of nurses, physicians, and physiotherapists.

Training in Kenny's Methods 1942 p. 79	• Beginning in 1942, Kenny seeks more funding from the NFIP to train physicians, nurses and physiotherapists. • The NFIP appears to be forthcoming with funding and Kenny is said to get the money she requested between 1941-1943. • However, the NFIP determines unilaterally that Kenny cannot handle the task of educating the thousands of healthcare workers needed to perform her methods in various centers. • So, the NFIP, through the March of Dimes, funds both instructional programs and investigations in hospitals, medical schools and laboratories throughout the United States without Kenny's input. • In 1942, five "training facilities" for the Kenny method open in California, Georgia, Illinois, Indiana, New York and Pennsylvania. • The directors of these facilities (physiotherapists all) have some Kenny training, but are not fully qualified Kenny technicians. • Within the year, one thousand healthcare workers are trained in the facilities and well-funded research about the "Kenny method" is underway in them. • The sponsorship of Kenny training breaks ground for the NFIP to fund medical education in addition to direct treatment. • The problem with these centers is not initially publicly declared by Kenny, but it becomes evident that the courses taught at the facilities are too short and too different from Kenny's to be legitimate in her estimation. • To shore up her arguments for the need to solidify the boundaries of her methods, a two year study of her work yields results indicating her methods, beyond the use of hot packs and simple mobilization, have merit. • So legitimate are her ideas, according to her Minneapolis-based supporters, that in her third textbook, *The Kenny Method of Treatment for Infantile Paralysis* (1942), Kenny's own terminology is used by co-authors Cole, Pohl and Knapp. • Although the NFIP has taken up the funding and administration related to educating others in the Kenny method, Kenny herself continues to develop a domain in which she can offer full Kenny technician training in a program that is two years in length. • The development of this domain involves the creation of some security for herself. First of all, she seeks a regular salary (the NFIP can not offer her personal money because this is not in their mandate). • She also seeks a well-equipped location from which to administer and teach her techniques • The Board of Public Welfare in Minneapolis then takes interest in Kenny's plight and launches an inquiry into her situation, finding that she has little space in which to practice at the university and at the General Hospital. • Funding from the Board of Public Welfare, along with private donations garner Kenny adequate housing and "domestic help". The funding allows for the establishment of the Sister Kenny Institute in December 1942.

Sister Kenny Institute and the "Original" Kenny Methods 1942-1943 p. 82	• The Kenny Institutes becomes a place for Kenny to develop her treatments in the manner that she desires, and it allows for continued experimental investigation into the effects of her methods by researchers who support her ideas. • The Institute, with a curriculum developed by Kenny in conjunction with Cole, Pohl, and Knapp and others, becomes the only site for full Kenny technician training. • It becomes increasingly isolated from the mainstream teaching of the NFIP related to moves by both Kenny and members of the NFIP. • In June 1942, at the AMA convention, the Foundation exhibited of the Kenny Method without inviting Kenny as a presenter and in early 1943, the NFIP sends a team of practitioners to Argentina to present Kenny's methods along with mainstream practices, rather than having Kenny present her own ideas independent from them. • Kenny sees the above moves by the NFIP as acts of shunning, diminishing her expertise and homogenizing her work with the mainstream. • Kenny, attempting to make a distinction between her original method and the Kenny method taught by the NFIP, begins referring to her work as something very different, finally settling on the development of a new science, "dermo-neuro-muscular therapy". • In the efforts to promote her work and protect the original Kenny concept, Kenny begins in 1943 to create demonstration films, so that the benefits of her method are recorded, constituting to her, the truth about their effects. (Pamphlet re: the Institute, circa 1951, p. 33; letter) • To add to the sense of legitimacy about her work, Kenny receives, the same year, an honorary Doctorate of Science by Rochester University, a honorary Masters of Science from New York University, and a Doctorate of Humane Letters by Rutgers University, the latter being the alma mater of the two scientists, Schwartz and Bouman. • Beyond developing a theoretical boundary between her original techniques and those of the NFIP, a shift in funding in 1943 further isolates the Kenny Institute from mainstream polio rehabilitation. • First of all, Kenny's allowance from the NFIP for her work with the University-based program is terminated. There is a discrepancy between Kenny's beliefs and those of the NFIP as to why this occurred. • Separate from personal funding, funding for the Institute is an ongoing issue, however, the NFIP's denial for direct funding of the Institute's programs does not deter Kenny. • She instead , in collaboration with the Board at the Kenny institute, creates an alternative fund-raising program.

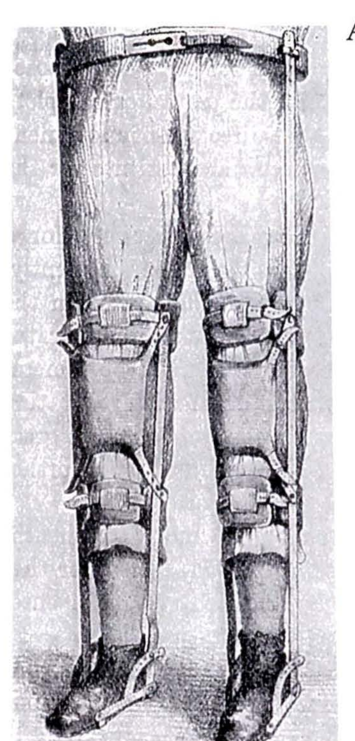
The Kenny Foundation 1943 p. 84	• In 1943, Kenny and her colleagues start the Kenny Foundation, which receives money from individuals and organizations, engaging in fund-raising techniques similar to those started by the NFIP, such as an annual dinner and campaigns in the press that highlighted "cute" survivors. • The Kenny Foundation, like the NFIP, funds a broad range of investigations into the treatment and prevention of polio, including the fields of virology and epidemiology. • Since the Kenny Foundation requires funding other than that from the March of Dimes, Kenny uses the NFIPs refusal to fund the Institute, while funding the Kenny method training facilities, as a key element her 1944 media blitz (which includes, a la her previous tactics in Australia, a threat to leave the Kenny Institute and the United States). • This position appears to contradict her expressed contentment with the NFIP in her autobiography *And They Shall Walk*, published in September, 1943, co-written by Martha Ostenso.
Whistle Blowing 1944 p. 85	• In 1944, Kenny capitalizes on the way that the NFIP uses her influence and her name to meet their own goals. • In her discussions with the press, Kenny blows the whistle on the NFIP. The public gave money to the March of Dimes, expecting a portion of funds to go to the Kenny Institute. • Instead, the funds go to research and training associated with the University of Minnesota and with the Kenny training facilities, the latter completely outside the realm of Kenny's governance. • Kenny repeats the above message in interview after interview, expressing her concern about others teaching the method, using her name but not her whole complement of strategies. • This move by Kenny and her colleagues raises the ire of NFIP officials, who respond in defense of their decisions: they were helping Kenny to promote a version of her method that was affordable *and* scientifically verifiable, unlike many of her strategies.
Still Another Committee Inquiry 1945-1948 p. 85	• Kenny's whistle blowing narrows avenues to gain legitimacy because she jeopardizes her connections with the NFIP. Thus, she seeks other means to validate her methods. • Kenny seeks validation via a formal investigation. However, this time around, she asks that her judges not be medical researchers, but politicians. • Early in 1945, Kenny makes a public request spearheaded in congress by Representative Donald L. O'Toole, to establish a Congressional Committee to investigate "organized opposition" to her concepts and treatments. • Kenny charges that the AMA issued defamatory statements and she claims that the NFIP's reluctance to fund her is connected with President Roosevelt.

	• It takes three years for action and after a May 25, 1948, letter by Kenny to the chairman of the House Committee on Interstate and Foreign Commerce, she is granted a meeting with Congress. • May 14 and May 19, 1948, Kenny makes testimonials. • In response to her testimonials, a written statement prepared by Dr. Hart E. Van Riper, Medical Director of the NFIP, is submitted to the Committee on June 2, 1948. Kenny, they say, gets plenty of recognition and funds too, adding that rather than rejecting Kenny, she is not open to modifications of her practices although they are a sign of progress. • During this period, Kenny threatens to end her work at the Kenny Institute, going so far as to submit her resignation to the board. She also threatens to leave the country, as she had in Australia. Indeed, Kenny makes the same threats on numerous occasions. • The first threat is in 1944 when Kenny claims she can not meet her $150,000 operating budget the Kenny Institute, a threat appeased by financial support by civic government, subscription by citizens and by patient fees. • Ironically, a tragedy requires Kenny to leave anyway. On April 23, 1945, she receives a telegram informing her that the fiance of Mary Stewart Kenny has passed away. Kenny travels to England to console her and then spends time in Australia. • By late 1945, only two Kenny clinics are in operation, one in Brisbane and the other in Sydney. • In her absence from Australia, the institutional structures to further develop her theories and practices had been greatly diminished. • Kenny returns to the United States in 1946. While the World War is over, the fight against polio rages on.
An Epidemic, a Film, and Another Campaign 1946-1948 p. 87	• The sixty-six year old Kenny is in Minneapolis to supervise care for the worst epidemic in the history of Minnesota, where over two thousand cases are reported in the city of Minneapolis alone. • The two year Kenny Technician Training Program remains intact and she takes a direct role in development of its curriculum. • September, 1946, marks the release of the RKO film *Sister Kenny,* starring Rosalind Russell. It is a critical success in the U.S. but does not do well at the box office. When the film reaches Australia in 1947, it is panned by critics there. • The last Australian Kenny Clinic, located at Royal North Shore Hospital in Sydney, closes shortly afterward. • In other parts of the world, though, Kenny's work is held in esteem. In 1947, she engages in an international lecture tour that includes stops in Eastern European countries and Russia, even meeting with the Pope. • In 1948, new free standing Kenny clinics open in the North Eastern United States.

	• Kenny launches another media campaign regarding her rejection from mainstream medical groups after being refused a place on the agenda of the International Poliomyelitis Conference, Manhattan, July 1948. Eventually, Kenny is offered a press card by a news agency, attending the conference as a reporter. • Despite her isolation from the mainstream, research into Kenny's notions of peripheral disease in polio goes on. Pohl publishes an article related to the peripheral aspects of the disease in 1947, and European countries like Belgium and Spain continue work on notions of polio being a systemic disease. Still, Kenny can not seem to garner the same media fervor that she had between 1942 and 1944.
Retirement? 1949-1951 p. 90	• In 1949, Kenny retires from the Sister Kenny Foundation and Dr. E.J. Heunekens becomes medical administrator at the institute. • Kenny returns to a small town in Queensland, Toowoomba, where she stays until the next year. In January of 1950, she travels to North America and Europe to attend an international polio conference as an official representative of the Australian Government. • She is also granted a visa by a joint Congressional Committee of the United States that offered free passage across the United States borders. • In 1951, Kenny is diagnosed with Parkinson's Disease, but this does not appear to derail her from her goals. • She attempts to revive the movement supporting her original practices. In August, she initiates a committee for a Toowoomba branch of the "Elizabeth Kenny Foundation International". She also petitions a branch of the Labour Women's Central Organizing Committee [*sic*] and an Infantile Paralysis Welfare Association to establish new clinics in New South Wales and South Australia. • As she attempts to revive her movement in Australia, struggling with the system and with Parkinson's symptoms, Kenny is voted by a Gallup Poll as woman Americans most admire.
Final Battle 1952 p. 91	• In 1952, Kenny authors a second autobiography (published posthumously in 1955) entitled *My Battle and Victory*. • On November 30th, while living near Toowoomba, she dies of a stroke and is buried in the Nobby cemetery next to her mother's grave. Some reports say she is sixty-six, but she is actually seventy-two (Kenny falsified her age to reporters upon arriving in North America in 1940). •

Appendix D

Figure 1

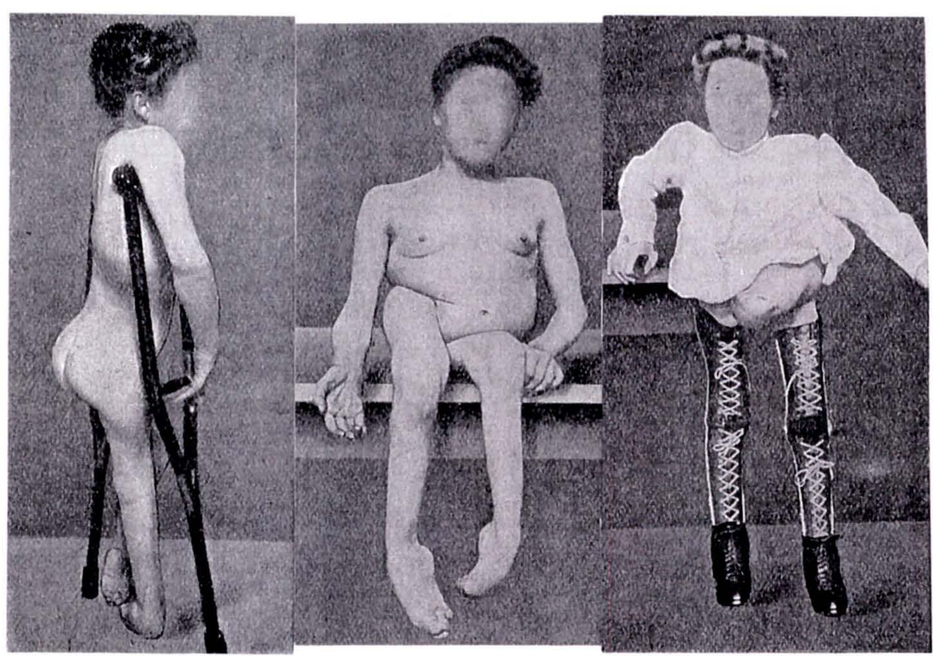


PRIMITIVE WALKING APPARATUS. (AFTER HEINE.)

—MOULDED WALKING APPARATUS.

p. 36

Figure 2



p. 300

Source: Vulpius, O. (1912). *The Treatment of Infantile Paralysis* (A. H. Todd, Trans.). Toronto: MacMillan.

End Notes

[i] These inquirers might also be known as poststructuralists working within the postmodern. Poststructuralism grew out of movement in political thought that problematized language itself as a vehicle for conveying the truth. In this perspective, language is not the descriptive vehicle for knowledge, representing a fixed or universal position of the truth, as it does in Cartesian perspective. Instead, language is inextricably part of thoughts, part of consciousness, part of reason. In describing poststructuralism, I stray too far from my line of argument and so maintain my classification of these inquirers as postmodernists. (Best, 1994; Lyotard, 1984)

[ii] "The Archaeology of Knowledge" offers a clear explication Foucault's method, but it does not offer basic information about history as an object of knowledge. Later texts that draw on genealogical methods were also not helpful for me to find a context within the *doing* of history.

[iii] Rene Descartes, trained as a mathematician, produced texts relating to his 'metaphysics' in the first half of the seventeenth century. Descartes is said to have been intrigued with the idea of linking chains of human cognition about all issues the same way that chains reasoning are linked in geometry, so that the links might provide an integrated framework for understanding. For the beliefs to be part of a Cartesian framework, they are required to pass tests for their truthfulness. Descartes' position provides a radical turn on other philosophical perspectives of his time, which were derived from diverse scholastic positions and were not unified. Descartes insists that information from the senses (all things 'known') should be always doubted until exposed to particular quantitative methods of analysis (qualitative aspects of the senses were disregarded in his inquires) that provide a rigorous test of the information. Once passing the tests, he believed that doubt could dissipate to be replaced by certainty. This certainty was thought of as a firm philosophical foundation for theory; it is a pervasive form of foundational knowledge. (Dancy and Sosa, 1993; Descartes, 1637/1996).

[iv] Latour is said by Kendall and Wickham (1999) to have critiqued his positioning in the categories "postmodern" and "poststructural", questioning the unities in discourses that construct the two in his later work, but for the purposes of this paper, I identify Latour as a postructuralist working in the postmodern.

[v] Wouldn't this be great to put in a recruiting advertisement!

[vi] There is not a lot of information in the historical stories of Kenny about Mary Stewart, whose name was changed to Mary Stewart Kenny. When Elizabeth Kenny was off promoting her methods for polio treatment, Mary appears to have been co-parented by her grandmother, Mary Kenny senior, switching caregiver roles with the elder in latter years. (Kenny/Ostenso, 1943) After Mary senior's passage in 1937, Mary Stewart was trained in Kenny's methods, becoming herself a Kenny technician trainer.

[vii] The numbers representing success and failures in the data about orthodox and Kenny treatments are so fragmented that it appears impossible to figure them out.

[viii] Paralysis was later classified according to the location of nerve cell damage in the central nervous system, a foundation for classification that remained in place from the time of Charcot. Anterior poliomyelitis affected the anterior horns of spinal cord; there was acute lateral poliomyelitis, also known as spinal paralytic poliomyelitis; and ascending poliomyelitis, which starts with paralysis in the legs and moves upward; cerebral poliomyelitis which affected the brainstem and the motor cortex, also known as polioencephalitis; bulbar poliomyelitis that damaged the medulla oblongata of the brain affecting swallowing, breathing and circulation; post-inoculation poliomyelitis caused by 'experimental polio'; and post-tonsillectomy poliomyelitis, which was found to have been prevalent after tonsillectomy in the early twentieth century. (Dorland, 1974) More classifications existed shifting with time and context, generated over the decades, many named after medical men (Paul, 1971).

[ix] First attempts at inoculation were made on guinea pigs, rabbits, and mice, but these animals did not get polio. Then Landsteiner and Popper tried to get monkeys, which were expensive and in great demand. The species they sought were "New World" monkeys, but these monkeys were only available to researchers with a higher status, engaged in more important investigations. So, Landsteiner and Popper used "Old World" monkeys, which were considered disposable because they had already been used for past experiments. Ironically, "New World" monkeys do not get polio (Paul, 1971).

[x] Indeed, the National Foundation for Infantile Paralysis(NFIP), founded by Roosevelt circa 1924, has an especially ironic name, given that Roosevelt himself got the infection at age thirty nine and the NFIP is the agency that funded and supervised most medical research into the disease 'poliomyelitis'.

[xi] There is a typed 'copy' of this article, perhaps a draft or a copy made by Kenny's staff. The last sentence in a similar section of the copy says: "In addition she was thrown entirely upon her own resources, and thus evolved an entirely original and unconventional concept of the disease." Nowhere is Kenny's discovery of an original concept mentioned in the published article.

[xii] I say this not because I have written information about the reason for inspection, but because it is likely part of Dr. Cilento's role to make inspections of sites like Kenny's, once his health officers earmarked the sites as worrisome.

[xiii] The fifth columnists were supporters of Franco living in Madrid, who secretly aided his forces during the Spanish Civil War, an analogy still fresh in the minds of Americans at the time, likely because the stories that American writers produced about the Spanish Civil War.

[xiv] There is an exchange of letters between Kenny and Fischers which is very interesting. Their son, Phil, was in Kenny's Institute for over one year. The Fischers in an August 22, 1943, letter ask Kenny for information about their son's progress. Kenny appears to "misinterpret" the letter and the Fischers are defensive in their August 31, 1943, reply. They note they are not asking for a formal report about Phil's status, but want to know when he can come home; Kenny said he might be discharged in June and it was already August.

Post Script

After discussion in my thesis defense, it was brought to my attention that I did not adequately mention important developments in nursing inquiry, emerging over the past thirty years, which formalize theories of the human body in nursing that are unique to nursing as a discipline in health science. This postscript is meant to address this omission. In it I situate my perspectives in relation to two world views discussed by Rosemary Rizzo Parse: the simultaneity and totality paradigms.

In the body of my thesis, to situate my position I do not use the term "paradigm", defined here as a fundamental set of beliefs and assumptions about entities in the world, which serve as a theoretical framework guiding our actions (http://www.m-w.com/cgi-bin/dictionary; Guba and Lincoln, 1989). Instead, I begin on page 18 to explore how my work is positioned with/in the 'postmodern'. I note, postmodernity refers to a "...term used to classify a broad spectrum of artists, writers of fact and fiction, and inquirers in the human sciences who question some of the narratives and philosophical positions that ground projects of modernity." (p. 18)

In the thesis, I locate my analysis as something that falls with/in the postmodern because I adhere to philosophical precepts, determining how to take a critical stance toward entities such as, persons, reality, society, and the truth, along with disciplines like medicine and nursing, and the human body, a stance which is classified as postmodern in nature. Postmodernism, however, is not a paradigm of thought. Rather, it is an attitude taken up by individuals who ask questions about the classification of knowledge within paradigms. In this sense, postmodernism might be seen as metaparadigmatic.

Having said this, I realize that in the body of the thesis I do not explain the important link between paradigms of thought in nursing and the study of discourse from a postmodern, Foucauldian perspective. Specifically, I do not explicate my approach to the human body as one that arises, in part, from nursing discourse, which is taken account of in narratives arising from many paradigms. The following paragraphs are an attempt to introduce the important links that I will explore in future work.

In the 'ending' of the thesis, I note that in nursing discourse, there are different but converging perspectives of the body guiding practice. One stream of thought makes the body nurses work with predictable by drawing upon foundational ideas of it as a normatively bounded corporeal entity generated in medicine, inspired by experimental and laboratory analysis. While the other, inspired by human sciences, takes account of the body as something in evolution, depicted as an entity emerging from particular contexts affected by time, space and place, influenced by its sustenance, threats, and connection with the 'other' (Fawcett, 1995; Marks-Maran & Rose, 1997). So, in a sense, I am describing two paradigms of thought related to the body within nursing practice, without calling them paradigms.

Parse (1997; 1999; 2000), influenced by nurse theorist Martha E. Rogers, also discusses two streams of thought related to the body in nursing discourse. Parse makes the distinction in her work between nursing as an "applied science", which is grounded in notions of the human body as a normatively bounded, medicalized entity, and nursing as a "basic-science discipline", which considers the potential for the body in nursing to be constituted very differently from its medicalized counterpart (Parse, 1999, p. 1384; 2000). Nursing as an applied science emerges from a paradigm Parse notes to be the "totality

paradigm" (2000). Whereas, nursing as a basic-science discipline emerges from the "simultaneity paradigm" (Parse 2000). Both paradigms see the human as whole, but whole in different ways (Parse, 2000).

Within the totality paradigm, each human is seen to be constituted by a unique combination of biological, psychological, social and spiritual characteristics. Humans are, in this paradigm, the sum of their parts. These elements shape the individual human as an entity that is separate from its environment, or "universe", while continuing to respond to it either in the form of a cause-effect reaction or an association (Parse, 1999; Parse, 2000). Those who ascribe to the totality paradigm to conceive of the body report health to be a "state of well-being", as though it is a point on a continuum between wellness and illness (Parse 2000, p. 275). Accordingly, humans learn to manipulate and interact with their environment in order to attain the goal of optimal health upon this continuum (Rose and Mark-Maran, 1997).

In comparison, within the simultaneity paradigm 'whole' refers to the human being "unitary", meaning that the human is an entity co-constituted with its universe, rather than being something separate from it. This unitary being thus emerges from particular contexts and its constituents are affected by time, space and place. In addition, the unitary being appears to be defined in relation to entities such as the 'other', its sustenance, influences, and threats, all of which are taken account of in such a way that they gain their attributes and meaning from the individual, rather than a health authority who stands in judgement of the same individual (Northrup and Cody, 1998; Northrup, in press). The human as unitary being is thus more than the sum of its parts (Rose and Mark-Maran, 1997) because it is co-

constituted with processes and entities that are not normatively determined, quantifiable parts, but rather contingent experiences taken account of by the individual.

Parse notes, unitary "refers to a unique field pattern, a human universe ever-changing mutual process." (Parse, 2000, p. 275) Thus, the human as unitary being is always in the process of becoming. Understanding that individuals are always in a process of becoming, one cannot treat health as something that is like a point fixed on a continuum between wellness and illness. Instead, health is a co-construction between individual and universe that is contingent, always evolving as something that is a, "set of values" (Parse, 1999, p. 1384), rather than a steady state of being (Parse, 2000; Northrup, in press).

Parse has developed a set of methods for use by the inquirer in an analysis of the human body as unitary being, so that there might be more systematic accounts of human becoming within the discipline of nursing. Not only is her work used to guide basic research, it is also applied in clinical settings to guide practice (Northrup and Cody, 1998). I suggest here that there is utility in the idea of either contrasting or merging methods of Foucauldian discourse analysis with Parse's analyses of human becoming. When I take up future work in this regard, I will be more able to explore the discursive context from which my notions of the body emerge, enabling me to offer analysis which might be more discipline-specific.

The content of one analysis might be the ways in which Elizabeth Kenny's work operates somewhere 'in-between' the paradigms of totality and simultaneity, making it controversial and an attractive intermediary because of its difference. For example, Kenny's notions of the poliobody are in some ways very systematic and mechanistic, as though they arise from the totality paradigm, while at the same time, they depend on a

process of becoming that is more in line with conceptualizations of the body in the simultaneity paradigm. There are narratives depicting these converging theoretical approaches informing Kenny's work.

Kenny is in some narratives seen as an expert in the field of polio because of her knowledge of the body as a mechanistic entity. Dr. Boines notes,

> She knows the law of mechanics by which all body movements are controlled. It is this knowledge which enables her to look a patient over and detect every muscle which is spastic or which is pulling in the wrong direction. (Boines, n.d., ¶ 3)

However, Kenny's approach to understanding the mechanics of the poliobody does not emerge solely from the pages of an anatomy book. Instead, she uses information about muscle location and function derived in medicine and adds her experiences with the body to question medical norms. Kenny gains her specific knowledge of poliobody mechanics through an attention to sensations she experiences by touching the skin and by looking at the poliobody's surface. This is an intuitive dialogue of sorts. In addition, Kenny is said to sustain a constant verbal dialogue with the polio survivor, which serves as a means to gain information about survivor experience while at the same allowing for a context in which the survivor learns about his or her body and its capacities.

It is the experiential and dialogic parts of Kenny's work--those arising from the simultaneity paradigm--that are difficult to textualize. For example, in Kenny's textbooks there is abundant information about body positioning and equipment, while there is little information about the attitude required to sense when the body is ready for such positioning and equipment. Since it is difficult to textualize, it is challenging to examine the full complement of her work for its truth value because intermediaries

taking account of it are not derived from the same sites used by modern medicine to determine the 'truth' about it as a medical entity: the laboratory and the controlled clinical trial.

Instead, Kenny's propositions about the poliobody gain truth value because of the way in which intermediaries about her practices are circulated within contexts like the clinic and the home. Within these same contexts, the 'truth' about Kenny's work and her notions of the body depicted in the media appear irrefutable. Who can dispute the fact that children treated by Kenny frequently have a 'miraculous' recovery? So arguments by Kenny and her supporters regarding the need to question orthodox medical practices, based on the idea that the same practices are immoral, are heard and medical practices shift.

However, the truth about Kenny's poliobody, as something that is in the process of becoming, has severe limitations, within the context of medicine initially and then in a broader context, because of the ways in which it is textualized. This becomes obvious when Kenny makes arguments for a two-year period of formalized Kenny technician training in order to attain the abilities necessary to render her methods in their authentic form. Members of the general public become confused when they hear stories that contrast Kenny's authentic work with that emerging from the National Foundation of Infantile Paralysis. Floyd McGriff (1946) and Barbaralu Sanderson (1944) wonder, who should they trust?

Science generated from medicine indicates that the essential elements of Kenny's methods are those proven to make a difference via controlled experimentation. Thus hot packs are seen to aid in the loosening of spasm and simple

exercises are said to be effective to diminish contractures and deformity as well as augment strength. Whereas Kenny argues for a more refined assessment of the poliobody, one that requires highly trained technicians to attain the types of dialogue with the body I mention above. Unlike the medical scientists supporting the Foundation's position, Kenny cannot produce intermediaries that support the need for her form of authentic training. Despite the fact that she claims to develop a "newer science", Kenny's dermo-neuro muscular therapy does not displace the medicalized Kenny Method developed by the Foundation.

I wonder how Kenny's arguments would be formulated if she could have drawn upon philosophical precepts about the body generated in the simultaneity paradigm? This sense of curiosity I bring to my practice as well, when I think of the times I work with a body taken account of as something that is in-between the simultaneity and totality paradigms. This convergent place, I imagine, is 'nursing'.

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Aut

Patricia Joanne Wallace

April 19, 2002