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LIGHTNING-ROD MEN, MAGNETIC LIVES, BODIES ELECTRIC: ELECTROMAGNETIC CORPOREALITY IN EMERSON, MELVILLE, & WHITMAN

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LIGHTNING-ROD MEN, MAGNETIC LIVES, BODIES ELECTRIC: ELECTROMAGNETIC CORPOREALITY IN EMERSON, MELVILLE, & WHITMAN

BY

JAMES PATRICK GORHAM

A DISSERTATION SUBMITTED IN PARTIAL FULFILLMENT OF THE

REQUIREMENTS FOR THE DEGREE OF

DOCTOR OF PHILOSOPHY

IN

ENGLISH

UNIVERSITY OF RHODE ISLAND

DOCTOR OF PHILOSOPHY DISSERTATION

OF

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ABSTRACT

From the time of American independence to the antebellum period, Americans labored to distinguish their collective identity from that of their colonial forebears in a world increasingly shaped by technological advances, industrial transformations, and scientific developments. Discoveries regarding electricity and electromagnetism resulted in inventions that would especially revolutionize human life. The advent of the lightning-rod in the mid-eighteenth century challenged prior notions that a destructive lightning bolt was an inevitable consequence of divine will, with any interference with that power understood as sacrilege. The rod symbolized a new, Franklinian American, who, steeped in Enlightenment science and philosophy, could stand up against religious and cultural dogma. In a post-Franklin America, one could re-invent oneself—and embody divine power—by harnessing and mastering nature, replacing old gods with new "gods" of technology and reason. Lightning-Rod Men, Magnetic Lives, Bodies Electric examines a strange and powerful epistemological and representational turn inside this discourse: those moments in which antebellum American writers imagined the human body itself as a lightning rod, as a centralized conductor that could use, transform, or synthesize this newly understood power beneficially. Images of the body as a lightning-rod came to signify a new American corporeal identity, one that allied the spirit of Franklinian independence and selfreliance with a materially manifest, independent and self-reliant body. Could a body's ability to channel, control, and convey electrical current, all the while remaining insulated from its harm, indicate some exceptional, supernatural power, or a form of artistic genius? This is the question that came to pre-occupy the writers whom I treat.

Ralph Waldo Emerson, Herman Melville, and Walt Whitman exemplify the antebellum American struggle to grasp the significance of emerging electromagnetic technologies and determine how this new knowledge could illuminate our understandings of the human body. Investigating the prominence of electromagnetic metaphors and representations of corporeality in Emerson's essays, Melville's Moby-Dick and "The Lightning Rod Man," and Whitman's 1855 edition of Leaves of Grass, I find ambivalent readings of electromagnetism's significance for constructions and conceptualizations of the human body vying with a theme of electromagnetic conductivity as a trope for genius: the image of an integrated body, mind, and soul that could directly translate the influence of nature into words and actions. Although all three writers espouse self-reliance and liberation from external influences, they share an impulse to create imagery that would pose the body of the attractive or enlightened poet, artist, performer, or orator as an electrified automaton, influenced and guided by the forces of nature. In their formulations, the attractive poet or performer seems marked for success by remaining impervious to the danger of conducting electrical currents, while synthesizing these currents and conveying them to audiences through "electrified" or "electrifying" performances. Through such imagery, these writers not only anticipated later constructions of corporeality, but also invented them through language. Such imagery continues to inform metaphors of corporeality today, as exemplified by clichéd language used to characterize celebrities. These "dead metaphors" reveal larger frameworks of cultural metanarratives that inform our understanding of a range of affective traits or personal characteristics, from spirituality to enthusiasm, from attractiveness to enlightenment, from animation to genius.

ACKNOWLEDGMENTS

Perhaps it goes without saying that embarking upon a task as gargantuan as the composition of a dissertation cannot be done without the help, wisdom, and encouragement of many others. Still, it must be said, and must not be forgotten. The engagements with texts, development of ideas, and maturity of mind that are all required to bring the process to successful fruition are feats that are impossible to achieve in a vacuum. It is only with sufficient illumination and guidance that one who would take on such an endeavor might ever reach the finish line. Luckily, I have had the good fortune of encountering amazing teachers and scholars who helped me arrive at this point along my educational path, and I would be remiss if I did not give them my heartiest and most sincere thanks for all the support they have given me along the way. These individuals not only helped to provide me the proverbial "sparks" that ignited my passion for this project, but they were also the catalysts for the lightning-bolt epiphanies that formed the seeds from which this project grew.

First and foremost, I must extend my most heartfelt thanks to my major professor, Dr. Mary Cappello, whose tireless support, advice, and encouragement truly made all of this possible. At a tearful, caffeine-fueled meeting at the appropriately named White Electric Café in Providence, she spurred me to work through my frustrations and fears and bring this project to completion when it seemed at its most daunting and impossible. By always believing in my abilities as a writer, scholar, and researcher, she helped me to overcome my doubts and persist to the end. Moreover, she motivated me to overpower the many forces of resistance that would have left me, like Emerson's poet, "stuttering" and "stammering." This current project, and in

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particular its explorations of automata and the relation between frozenness and fluidity, is in many ways the sequel to—and natural outgrowth of—my previous research performed while a student in Professor Cappello's graduate courses: namely, my work on the significance of nineteenth century dolls in the poetry of Emily Dickinson, and my exploration of influx and efflux in Edgar Allan Poe's "The Fall of the House of Usher." Also, due to a tip given to me by Professor Cappello, I attended a truly enlightening field trip to the Morris Museum, sponsored by the Brooklyn-based organization Observatory. This trip opened my eyes to the profound significance of nineteenth century automata for constructions of the body and embodiment in antebellum America, offering me invaluable insight that helped me to frame and construct my argument in this dissertation, and, in particular, in my chapter on Whitman. Professor Cappello's creativity, intellectual vigor, and impressive scholarly work ethic have all been a constant inspiration to me throughout my graduate career at URI, and I can honestly say that I could not have completed this project without her.

I must also thank all of my other committee members for their time and efforts in support of my project. I am very thankful for the support of Dr. Martha Rojas, whose expertise in eighteenth and nineteenth century American literature was so vital to my success. Professor Rojas not only guided me to many texts that were beneficial to me throughout the research and writing process, but also posed many questions that helped me to sharpen and hone the focus of my argument. I am extremely appreciative of Dr. Galen Johnson for his kindness in joining my committee at a late stage in the process, and I am so grateful for taking his summer philosophy course, which was invaluable in illuminating the finer points of philosophical works ranging

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from Marx, to Foucault, to Butler, just to name a few examples. Moreover, his scholarship on Emerson renders him a particularly worthy critic of my work here, thus making his presence on my committee truly valued and esteemed. I heartily thank Dr. Valerie Karno for also joining my committee at a late stage. My interest in affect, animation, and the body—and, in particular, my interest on how these phenomena play out in American popular culture—was very much a direct product of her intellectually rewarding and stimulating graduate course. It was in very large part the thinking and research that resulted from readings and conversations in her course that led me to the conclusions at which I arrive in my concluding chapter here. Finally, I must offer my most sincere thanks to Dr. Karen de Bruin, for weathering the many changes in my committee and remaining steadfast in her support throughout the years. Given the preponderance of French philosophers and theorists in my project, I count on her expertise as a scholar of French literature to keep me honest and accurate in my translations and paraphrasing of their scholarly work. I also appreciate her questioning that would lead me to understand the place of my work within the larger tradition of Continental philosophy, and I thank her for her reminders to state my ideas as straightforwardly, clearly, and concisely as possible. Such advice has been crucial to the completion of this dissertation.

I must also take a moment to thank former members of my committee for their time, efforts, and support throughout this process. I must thank Dr. Alain-Philippe Durand for his enthusiasm and his wisdom, as well as his advice on successfully navigating graduate school. I must also thank Dr. Jennifer Jones, whose graduate course in English Romantic poetry helped to form a solid foundation on which I could

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begin to understand how electromagnetic tropes in American antebellum literature had a truly transatlantic genealogy, amply evident, for example, in the works of Coleridge and Shelley. Finally, I must offer my warmest appreciation for the inspiration given to me by my former major professor, Dr. Matthew Cordova Frankel, whose sense of humor, attention to detail in literary analysis, and love of Melville's *Moby-Dick*, were all infectious. It was in his classroom, during a close reading of the chapter titled "The Quarter-Deck," that I first had the epiphany that would lead eventually to this entire dissertation. Professor Frankel's avid interest in exploring Melville's novel alongside twentieth century considerations of the body and technologies—in particular those expressed by Foucault, Deleuze, and various Marxists of the Frankfurt School—had a profound impact on my thinking here in this project. I am forever indebted to him for inspiring my choice of topic for my doctoral research.

I must also thank my fellow presenters and organizers at conference panels where I presented my research at various stages during the process. I would like to thank Dr. Liz Hutter from the University of Minnesota, Twin Cities, for chairing a wonderful panel at the 2011 Midwest Modern Language Association conference entitled "Playing with Risk in 18th and 19th Century Science." Not only did this panel offer me an opportunity to share my work with colleagues and learn about research projects tackling similar topics to mine, but it also provided me the opportunity to receive valuable feedback and insight. Moreover, my choice to frame my arguments around concepts of "play" was the direct result of my preparation for this conference, playing a crucial role in the formulation of my chapter on Emerson. I would also like to thank the organizers of "Forces at Play," the 2012 interdisciplinary graduate

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conference put on by the English Graduate Organization at the University of Massachusetts, as well as my fellow panelists, for helping me to hone my arguments in my chapter on Melville, and think of it, too, in terms of "play." Finally, I would like to thank the organizers of the conference entitled "Nineteenth Century Literature and the Cultural Moment," sponsored by the University of South Carolina, in which I first publicly presented a paper on this topic, metaphors of electromagnetic corporeality, which would later become the focus of this entire dissertation. It was in my paper delivered at this conference in 2006 where I first drew the connections between the imagery of Benjamin Franklin's body, as depicted in Benjamin West's Franklin Drawing Electricity from the Sky, and the "body electric" of Whitman's *Leaves of Grass.* It has been a long road from then to now, but that initial opportunity to present my work was a necessary step that made this later, more developed, more nuanced exploration of the topic fully possible, as seen in my introductory chapter here. The input and questions of audience members and fellow presenters at all of these conferences was very helpful in the preparation of this dissertation as a whole.

I should also stop to thank my lucky stars for the many wonderful and inspiring English teachers I have had the pleasure to have as part of my education over the years. I thank my elementary school and junior high school teachers, for always instilling me with a love for reading, writing, and the pursuit of knowledge. I thank my wonderful high school English teachers at Concord High School, and in particular, Mr. Robert Pingree, whose wit, eccentric teaching style, and love of poetry and language, was the reason I was inspired, at the tender age of 15, to become an English teacher myself. I must also thank my many inspiring English professors at the

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University of New Hampshire, but in particular Dr. Patrocinio Schweickart, who believed in my potential as a scholar of critical theory and was the first person to ever tell me that I should seriously consider pursuing graduate study in English, and Dr. Lester Fisher, who truly taught me the value of reading slowly and carefully questioning and considering the import and potentiality of every word choice in a given work of literature. Finally, I must also thank the extremely warm and supportive faculty of the English Department at Northeastern University, where I earned my master's degree. In particular, I must express my most profound thanks for my graduate mentors Dr. Guy Rotella and Dr. Wayne Franklin, who provided invaluable assistance in helping me in my scholarly pursuits. Professor Rotella not only bolstered my love for poetry, but also helped to show me how to read and analyze poetry with extreme care and precision. Professor Franklin not only helped to spark my interest in early American and nineteenth century American literature, but also helped me to fully appreciate and understand the work of Henry David Thoreau in its historical and cultural context, especially as it relates to antebellum material culture, an interest that culminates in my study of Thoreau in this current scholarly work. The influences of all these figures in my scholarly life can be clearly observed not only in my dissertation here, but also in my overall approaches to the teaching and study of literature. I am forever grateful for these influences.

Finally, I must thank all of my friends, family, and colleagues for their warmth, patience, conversation, and support throughout this entire dissertation process. I thank all of my friends and family members who continued to offer words of encouragement and support, even when sometimes it seemed like this project would never reach

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DEDICATION

For my wife, Rebecca, and our children, Patrick and Hannah

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INTRODUCTION

"CRUDE AND HASTY THOUGHTS": ELECTRICITY'S BEGUILING INDETERMINACY FROM FRANKLIN TO EMERSON

These thoughts [...] are crude and hasty; and if I were merely ambitious of acquiring some reputation in philosophy, I ought to keep them by me, till corrected and improved by time and farther experience. But since even short hints, and imperfect experiments in any new branch of science, being communicated, have oftentimes a good effect, in exciting the ingenious to the subject, and so become the occasion of more exact disquisitions, and more compleat discoveries, you are at liberty to communicate this paper to whom you please [...]"

> —Benjamin Franklin, from his letter on electricity, written to Peter Collinson, September 1753

Electricity...is ill understood, employed with risk, subject to unexplained vagaries and accidents; it is notoriously an imperfect science.

-Boston Medical and Surgical Journal (1898)

Whether/whether even counts as an option/in genuine truth-telling—shouldn't that be/ a thunderbolt? Minus the should. For that matter, minus/thunder too. It's/ the bolt: to be beside/ oneself. To know what happened,/what has to.

-Marianne Boruch, from her poem "Mind and Body"

Looking at the depiction of Benjamin Franklin in Benjamin West's 1805 painting Franklin Drawing Electricity from the Sky (see fig. 1), one may find it easy to get swept up in the majesty and romance of the scene of Franklin's famous kite experiment of 1752. It may also be easy to forget how West both falsifies the particulars of the experiment and its lauded hero as he mythologizes Franklin as a kind of superhuman Prometheus figure. As Walter Isaacson writes in his biography of Franklin, the painting "mistakenly shows him as a wrinkled sage rather than a lively 46-year old," as he became "celebrated...in popular lore" (140). By 1805, in the wake of Franklin's death just fifteen years earlier, the engraved images of Franklin's much older bespectacled face had already become iconic, emblazoned on the collective American memory. To attach the face of the much younger man to the kite experiment would likely render him unrecognizable. And in the wake of the successful American Revolution, Franklin's kite experiment was not only representative of scientific achievement, but also symbolic of the triumph of reason over nature, democracy over inherited dogma and aristocratic hierarchy.

West drapes his hero in what appears to be a sort of flowing red cape, befitting of a superhero, long before depictions of superheroes ever became popularized in comic books. Franklin is also shown accompanied by what appear to be near-naked putti, who, as if borrowed from Michelangelo's frescoes, assist Franklin in holding the kite string and operating his scientific instruments. Ironically, it is as if in conquering and harnessing electricity, he has been ordained by heavenly angels to complete his task, even if such a task might infer that he would supplant a vengeful God who might



Fig. 1. Benjamin West, *Franklin Drawing Electricity from the Sky*, Philadelphia Museum of Art.

strike down sinners by lightning bolts as punishments for their transgressions. Even more tellingly, the kite itself is not depicted in West's work and exists somewhere beyond our frame of vision; the painting envelops Franklin's body in darkness and would have us focus our attention squarely on not only Franklin's iconic white face, but also on his extended and raised arm and hand, and the white spark that he receives from the electrified key to his upward-pointed knuckle. Long before images of lightbulbs appeared in thought balloons over depictions of the human body in order to represent epiphany or enlightenment, West's characterization of the scene makes it seem as if the electricity that travels to Franklin's body is itself a kind of enlightenment. In this way, Franklin would embody the Age of Enlightenment.

What is forgotten or elided by West, however, is that in taking the risk of extending his uninsulated knuckle to test whether or not sparks would be present, Franklin would risk his life. Two years before, Franklin had made the mistake of conducting electricity to his person when he nearly killed himself accidentally as he attempted to cook a turkey by means of a Leyden jar. As Isaacson reminds us, it was thus "notabl[e]" for Franklin "to survive" his failure to insulate his hand in the kite experiment (140). Others who made similar attempts were not so lucky. The death of German scientist Georg Wilhelm Richmann, who succumbed to electrocution in 1753 while attempting a similar type of lightning-rod experiment to the one performed by Franklin, serves as a grim reminder that experiments with electricity could sometimes prove lethal. Far from being a superhuman hero impervious to electrical influence or conduction, Franklin should have known that touching his uninsulated knuckle to the key was foolhardy and irresponsible, and that his survival of that action was the

product of sheer luck. In fact, it is altogether possible that this detail was part of Franklin's own mythologizing of himself in his own narratives, a feat that he certainly did not shy away from in the Autobiography and elsewhere. It is as if the myth of Franklin's victory, the majestic legend of his "drawing of electricity from the sky," becomes more important for its symbolic potential than the actual particulars of the scene of the experiment itself. As Tom Tucker writes in his book on the mythology and symbolism surrounding Franklin's kite experiment, "after Franklin's death and throughout the nineteenth century, the image of the Founding Father who conquered electricity would be used in assimilating a broad American cultural identity" (212). As images of Franklin came to embody and symbolize the American Enlightenment, his subject matter, electricity, consequently became increasingly conflated with lower case "e" enlightenment, despite any imprudence that may have accompanied the risky actions that Franklin undertook. For his part, Benjamin West disregards the recklessness of Franklin's actions, as he gets carried away by his own majestic imagery that would laud and deify Franklin as an American brand of hero. It seems he would carry us along with him.

As easy as it is to forget how images of the mythologized body of Franklin became superimposed over the details of the man himself, it is perhaps even easier to forget how Franklin's observations on electricity, along with the vocabulary he used to describe it, were, in his own words, "crude and hasty" thoughts. Using the imperfect medium of language, Franklin coined much of the vocabulary by which we describe electricity today, and, as such, he is sometimes lauded as the great "inventor" of electricity. But, in using language to "invent" new ways of thinking about electricity,

Franklin introduced indeterminacy to his subject. Such indeterminacy would open the door to pseudoscience that he would not agree with, or metaphor that he did not necessarily intend.

With such indeterminacy in mind, we might then ask ourselves: what *is* electricity, exactly? Although electrical energy is omnipresent and commonplace, surging, coursing, and flowing within and without us, it may be difficult for many of us—especially those of us who lack formal education in electrical and electromagnetic science—to say definitively what *it* is. Moreover, given its power to animate what would otherwise appear to be inanimate objects, we might ask ourselves (as did early nineteenth century poets such as Samuel Taylor Coleridge¹): what is electricity's relationship to life itself, or the so-called meaning of life? Are the two analogous, or synonymous? Despite advances in electrical and electromagnetic theory since the eighteenth and nineteenth centuries, we face today a dilemma similar to that of early "electricians" when attempting to describe electricity adequately. Presented with the problem of defining electricity, electrical engineer William J. Beaty writes that the "question is impossible to answer because the word 'Electricity' has several contradictory meanings...[which] are incompatible, and the contradictions confuse

¹ In his 1825 work *Aids to Reflection*, for example, Coleridge attempts to show that the combination of magnetism, galvanism, and electricity is analogous and essential to the animating power of life. Responding to a claim made by Vide Lawrence that would argue that "...there is no resemblance, no analogy, between Electricity and Life; the two orders are completely distinct; they are incommensurable" (60), Coleridge concedes that while electricity and life are not one and the same thing, "as no man in his senses, philosopher or not, is capable of imagining that the lightning which destroys a sheep, was a means to the same end with the principle of its organization" (65), he later argues that that the animating power of life can be expressed in terms of magnetism (understood as the "power of length"), electricity (understood as the "power of length and breadth"), and chemical affinity (understood as the "power of depth"), which correspond to three "constituent forces of life," which he accordingly associates with "reproduction," "irritability," and "sensibility": "the constituent forces of life in the human living body are—first, the power of length, or REPRODUCTION; second, the power of surface (that is, length and breadth), or IRRITABILITY; third, the power of depth, or SENSIBILITY" (94).

everyone." So how are we to manage and make sense of such incompatibilities and contradictions? Even as we become more and more reliant on harnessed electricity for our daily activities, and even as scientists become more adept in measuring and calculating electricity's effects, we might yet ask: is it an energy? A process? A force? None of the above, or some combination?

Part of the problem with defining electricity is due to the slipperiness of the language first coined to describe it, language that in many ways confused rather than clarified its characteristics. Franklin, along with other early practitioners of electrical theory from the period of the Enlightenment, wrote for example of electricity's fluidity, currents, and bipolarity, its charge and its conduction. Yet Franklin and others operated under significant misapprehension as they struggled to find language to describe with accuracy their observations of phenomena that they investigated in this new and emerging field of science. By the early 1830s, Michael Faraday would challenge the century-old assumption that electricity was not in fact a fluid at all. Alan Hirshfield describes Faraday's discovery in this way:

Through experiment, Faraday identified an assortment of solid-liquid duos that behave like water—insulating when solid, conducting when liquid. He found that all such substances share a common property: When conducting electricity, (while liquid) they simultaneously decompose—split apart—and their component elements or compounds appear at oppositely charged electrodes. Faraday's discovery

challenged the still widely accepted fluid model of electricity: If electricity is indeed an imponderable fluid, coexisting but not interacting with matter, its ability to flow should not be influenced by the state of the surrounding matter. (133)

Lacking Faraday's later insights, Franklin, along with other eighteenth century scientists, paradigmatically associated electricity with water or other "fluids." Given the dearth of alternate vocabulary choices, calling electricity a "fluid" offered a convenient metaphor that would help scientists and laypersons alike begin to describe or understand electrical phenomena or the movement of electrical energies. Since electricity was understood to behave in ways that resembled fluids, it was thus understood as "flowing" in "currents," much like streams of water. Franklin and others deployed such figurative language to capture a phenomenon for which there were not yet words readily available. It was an attempt at truth-telling, yet did not necessarily convey the literal truth at that point in time, and at that point of scientific understanding. Such figurative language worked as a sort of shortcut to bring about ready understanding among other interested parties, to begin a conversation and discourse upon which others might develop and improve: in short, to enable "more compleat discoveries," such as those made decades later by Oersted, Davy, or Faraday.

For his part, Franklin himself acknowledged and admitted that his own language choices were somewhat flawed and lacking in precision, when he wrote for example in 1753 that his emerging electrical philosophy was composed of thoughts

that were "crude and hasty." Yet despite whatever crudeness or hastiness accompanied Franklin's coinages, it is nonetheless important to remember, as Stephen Johnson observes in *The Invention of Air*, that Benjamin Franklin's "basic model of electricity survives to this day, along with the vocabulary [he] built to describe it" (21). As a result, in search of a suitable description of electricity, we grope, endowed with a vague, somehow inadequate lexical inheritance. But to what extent are the electrical coinages and applications of electrical theory of Franklin and others merely earnest transcriptions of observations, and to what extent are they also inventions or fabulations that would come to undergird, inform-and, more importantly, misinform—later observations and theories? Alternatively, could it also be possible that despite some misprision and missteps in precision in the scientific philosophy of Enlightenment-era electricians, that they could indeed stumble upon what Franklin might call "a good effect," "more exact disquisitions, and more compleat discoveries"? Could the creation of new vocabulary around the concept of electromagnetism and its relation to the body yield new metaphors, and with them, new understandings?

Thinking of this question's relevance to literary study, I would ask: where can we draw lines between the sphere of empirical, naturalistic documentation of electricity's elements and effects, and the sphere of electrical analogy or metaphor? Is there in fact a line to be found? Some voices in the scientific community might have us think of objective scientific inquiry as a realm free of metaphor and other forms of figurative language (or a realm that *should be* free of metaphor), but by following in this thinking we may fail to acknowledge fully the prevalence of—and importance

of—metaphor within scientific discourse. If one assumes that scientific discourse on electricity is indeed populated by an abundance of "electrical" metaphors, then how can we know what constitutes "real" electricity? Can we know?

Given electricity's indeterminacy and the difficulties of expressing description of it in language somehow free of metaphor (if such language is indeed even possible at all), it is not surprising that it has been such an oft-cited example used by those who would theorize the role of metaphor in science, as well as those who would in general ponder the linguistic relationship between words and their referents. If we explore the body of scholarly work on this subject, we find that electricity is often a pivotal example used in such debates, revealing yet further evidence of what we might call its "beguiling indeterminacy."

Electricity is a central topic used by American philosopher Hilary Putnam, for example, in order to illustrate his arguments on "meaning" and "knowledge" and their relation to what Saul Kripke called the "causal theory of reference." In his 1975 work *Mind, Language, and Reality*, Putnam criticizes what he calls a "traditional view" of knowledge (a view he associates with German philosopher Rudolf Carnap), in which it would be assumed that for every linguistic term or name there would exist a universally discernible "intension" (e.g. a "property" such as "red," which can be somehow intuited), and an equally discernible "extension" (e.g. a class of items that would fall into the "red" category). Putnam argues that in such a flawed model, "knowledge" is only linguistic in nature (one who "knows" knows what words mean, by knowing to what they refer). Putnam describes this model of knowledge as "fundamentally wrong," as he believes that to have linguistic competence in

connection with a term it is not sufficient...to have the full battery of usual linguistic knowledge and skills; one must, in addition, be in the right sort of relationship to certain distinguished situations" (199).

To illustrate this point, he offers the example of electricity, which he describes as a "magnitude," yet at the same time, "not even that: electricity was thought at one time to possibly be a sort of substance" (199). For Putnam, although scientists today no longer think of electricity as a "substance," the term "electricity" is as valid a term for us to use as it was for scientists then, as the term was inspired by the same phenomenon-the same original cause responsible for its naming. This is true, according to Putnam, even if our understanding of its properties, effects, and related associations may have changed since that initial naming. In other words, the act of naming (or what Kripke would call "dubbing") renders the referent fixed and stable, even if our theories about the referent may change. Putnam believes that although different speakers could associate the word "electricity" with different related concepts, these different people using the same word could still in a sense all be right, depending on their situational or environmental context. In this way, nobody would necessarily need to know the whole of what could be known (or has ever been known) about electricity or its related, associated concepts in order to use the term appropriately. Putnam describes this as follows:

I cannot...think of anything that *every* user of the word 'electricity' *has* to know except that electricity is...a physical magnitude...[and] is

capable of flow or motion. Benjamin Franklin knew that 'electricity' was manifested in the form of sparks or lightning bolts; someone else might know about currents and electromagnets; someone else may know about atoms consisting of positively and negatively charged particles. They could all use the term 'electricity' without there being a discernible 'intension' that they all share. I want to suggest that what they do have in common is this: that each of them is connected by a certain causal chain to a situation in which a *description* of electricity is given, and generally a *causal* description—that is, one which singles out electricity as *the* physical magnitude *responsible* for certain effects in a certain way. (199-200)

According to a model such as that offered here by Putnam, we might understand that although Benjamin Franklin understood "electricity" as a fluid, whereas Faraday did not, both used the same term, "electricity," to refer to the same phenomenon that caused naming to occur in the first instance. Therefore, despite the changing scientific understanding that occurred, their use of the word "electricity" would nonetheless point to the same "physical magnitude" responsible for the effects they would observe and describe.

In order to critique Putnam's epistemological and linguistic model, Thomas Kuhn takes a different approach—while still using electricity as an illustrative example—in his essay "Metaphor in Science." In particular, Kuhn takes issue with

Putnam's formulation, especially as it concerns the idea of a word "pointing to" a referent:

There is something right about Putnam's claim that the referent of "electric charge" is fixed by pointing to the needle of a galvanometer and saying that "electric charge" is the name of a physical magnitude responsible for its deflection. But, despite the amount that Putnam and Kripke have written on the subject, it is by no means clear just what is right about their intuition. My pointing to an individual, Sir Walter Scott, can tell you how to use the corresponding name correctly. But pointing to a galvanometer needle while supplying the name of its cause for deflection attaches the name only to the cause of that particular deflection...it supplies no information at all about the many other sorts of events to which the name "electric charge" also unambiguously refers. When one makes the transition from proper names to the names of natural kinds, one loses access to the career or lifeline which, in the case of proper names, enables one to check the correctness of different applications of the same term. (535)

If we apply Kuhn's formulation to the example of Benjamin Franklin, we see how the proper name "Benjamin Franklin" points to the man himself as he was when he lived. Not having Franklin alive with us today, we could point to an engraving or portrait purportedly of Franklin and understand that the name "Benjamin Franklin" points to

the man depicted in that engraving or portrait. Then we might check the historical archive and biographical records and see if the man depicted in the portrait matches up to the data we have recorded, in order to verify that that to which the picture refers is indeed correct, so that we can be sure we are using his name correctly. In the case of the Benjamin West painting discussed earlier, we know in fact that the portrait of Franklin is *inaccurate*, for the reasons already listed.

But now what if we try to do the same thing with a "name of natural kind," such as "electricity"? Even if we point to the cause of its being named, the "physical magnitude" that could flow or move in a lightning bolt directed toward Franklin's kite (or flow or move from Franklin's Leyden jar to his body), how does that help us to know how and when to *use* or *apply* that word appropriately, especially when the term took on so many applications far afield from its original use, such as its use to describe an appealing, compelling performer, or, as we shall see, in pseudoscientific applications of medical electricity? For example, if an admirer of Benjamin Franklin chooses to express that admiration by metaphorically making an association between Franklin's genius (or, for that matter, his courage in the face of danger, his skills as an inventor, scientist, statesman, ambassador, etc.) and his supposed bodily electric charge, or, to borrow the words of Chauncey Depew, "the electric spark of his presence²," then how are we now to understand how to use this word correctly, with respect to the original usage? Whereas one can point to the movement of a

² The Hon. Chauncey M. Depew uttered this phrase in a speech delivered July 5, 1897 at the American Chamber of Commerce in Paris, speaking of the effect that Franklin had on the French upon his arrival: "Benjamin Franklin came over here as the first predecessor of the eloquent and distinguished gentleman who now represents the United States as Ambassador to France, and as the messenger of peace and good will. With a key upon a kite string he had drawn lightning from the clouds, but when he stood upon the soil of France it was the electric spark of his presence which revolutionized that country" (41). Depew, an attorney for the great industrialist Cornelius Vanderbilt, would later be elected U. S. Senator.

galvanometer needle and see that it in turns points to a "physical magnitude" (the electric charge) responsible for its "deflection," one cannot point to Franklin's "electrically charged" body, or more precisely, the constructed *image* of Franklin's "electrically charged" body, and see that it has necessarily anything to do with the "physical magnitude" dubbed "electric charge." Yet we can nonetheless metaphorically praise the "electricity" of Franklin's personality and still be understood, without necessarily suggesting any natural correlation between this cliché and the "magnitude" that would register on a galvanometer.

But (as Kuhn would have us ask) what happens when scientific discovery brings about paradigm shifts that would literalize that which had previously been only metaphorical? If we now understand (as we do) that every human body (not only Franklin's) does indeed have an electrical charge which can be observed and recorded, and, moreover, that some human bodies transmit a greater electric charge than others (as they do), then how are we to differentiate that from metaphorical applications of "electrical charge" that associate it, for example, with love, or sexual attraction? In their 1980 work on metaphor, *Metaphors We Live By*, Lakoff and Johnson offer such examples of phrases in English illustrative of common metaphors that would suggest that "love is a physical force (electromagnetic, gravitational, etc.)":

I could feel the *electricity* between us. There were *sparks*. I was *magnetically* drawn to her. They are uncontrollably *attracted* to each other. They *gravitated* to each other immediately. His whole life

revolves around her. The *atmosphere* around them is always *charged*. There is incredible *energy* in their relationship. They lost their momentum. (49)

Given that such metaphors are so commonplace, how are we to know if one intends to speak literally or metaphorically about one's "electric charge," in the wake of scientific advances that would affirm electromagnetic corporeality as literal truth? And if what was once only possible in metaphorical terms (e.g. "I was attracted to her electricity") suddenly becomes possible as literal truth (e.g. "her brain emits electromagnetic waves"), then how are we to know that it will not later be shown, for example, that emotions of love or sexual desire are not also literally the product or result of an exchange of electromagnetic activity (e.g. "I was attracted by the electromagnetic waves emitted by her brain")? Could other utterances, once thought to belong purely to the category of metaphor, someday also be revealed over time as literal truths? And, in the aftermath of scientific revolution that would literalize metaphors, how are we to know which is which, and how can we make ourselves understood so that our listeners comprehend our meaning? How are we to differentiate between the two? How would it be possible to speak in metaphor-free language, or, more importantly, why should we, when metaphor is not only so prevalent, but can also be so revealing of truths which we may not yet see? Such are the questions raised by electricity's indeterminacy.

Even though Putnam would attempt to strip from his description of electricity everything that would suggest its multifarious metaphorical applications, leaving

behind only the vague phrase, "physical magnitude," which he would have us believe is what can be universally understood as the common source of its original dubbing, he can still not avoid metaphor in his own description of this "magnitude." "Magnitude" itself is understood according to paradigms of substance (physical size) and light (brightness), both paradigms that do not neatly apply to electricity, if at all. Moreover, while Putnam would argue that "every user of the term 'electricity' knows [it] is a magnitude of some sort" and, moreover, that all they need to know is that it "is capable of flow or motion" (199), the very word "flow" is metaphorical, in that it associates electricity and its movement with fluid, and the movement of fluids. In these ways, metaphor seems inevitable in discourse that would try to erase it. But chasms between words (and their metaphorical applications) and their supposed originating causes become even further apparent when over time we forget, as individuals or as cultures, that metaphors are indeed metaphors.

As Judith Butler writes in *Gender Trouble*, "metaphors lose their metaphoricity as they congeal through time into concepts" (26). The same idea applies here. Through repeated usage of the word "electricity" to refer to particular kinds of human bodies with particular characteristics, we reiterate dead metaphors or clichés, and as a consequence, the original freshness of such metaphors becomes increasingly lost. Over time, metaphors of electromagnetic corporeality "congeal" into concepts that might lead us to forget why—or how—they were coined. So if we cannot find—or cannot remember—correlations between the many metaphorical applications of electricity, the many concepts and clichés associated with electricity, and the many metaphors that informed the concepts associated with and used to name electricity just

after its "physical magnitude" demanded its being named and categorized, then how can we know what we know about electricity, and, moreover, how can we talk or write about it?

Presented with such an epistemological and semantic quandary, we might begin first by considering whether electricity was invented, created, or discovered. On one hand, one cannot "invent" or "create" electricity, as the energy, force, fluid, or process we now bring under the umbrella of "electricity" existed and was felt long before humans found language to name or describe it. If we understand knowledge to be empirical in origin, arising from that which is directly felt or sensed, then surely the phenomenon of what we now call electricity has been long "known" to humans, irrespective of whether or not it had a name. Yet, on the other hand, can't the act of describing electricity itself be an act of invention, creation, and discovery, helping to give birth to new avenues of conceptualization? If we understand knowledge also to be filtered through the complex and imperfect process of application, association, and arrangement of arbitrary sounds and signs to represent phenomena, then can we not trace the genealogy of our knowledge of electricity to specific moments of linguistic invention and intervention, where electricity became newly "known?" If so, then to what extent are our "scientific" definitions of electricity informed by metaphor? And, further, how might the indeterminacy of "electricity" then dissolve the distinctions we might make between the realms of literature and science, or between the metaphorical and the real? Applying these questions to the study of antebellum American literature, I will begin by asking: how did electricity's beguiling indeterminacy serve both the

scientific and literary imaginations of the post-Enlightenment era, the era that we have come to call the American Renaissance?

Such questions are not merely a matter of semantics, when one considers some effects of the application of electrical metaphors to understandings of human corporeality. As James Delbourgo amply demonstrates in his book A Most Amazing Scene of Wonders, once knowledge of electrical theory circulated and became more widespread in the late eighteenth and early nineteenth centuries, early narratives of electrical discovery such as that of Franklin were soon followed up by pseudoscientific theories that lacked scientific merit yet led to spectacles and symbolic displays of "enlightenment" of quite dubious nature, in an age when electricity became fashionable, when electrical theory became a hot topic in social circles, and when showmen and quacks alike made quick profits by exhibiting electrical phenomena to a paying public. Hence, the so-called "enlightened" few could enjoy the spectacle and experience of the "electric kiss" (receiving sparks from the lips of a woman charged by an electrostatic generator); could purchase and display umbrellas equipped and pointed with lightning-rods; could have their sexual dysfunctions supposedly "cured" through application of electrical apparati to their genitals; or, could witness African slaves given electric shocks for the purposes of entertainment, all in the name of promotion of-and display of-"enlightenment."

We are thus led to ask: what happens when the language of electrical or electromagnetic theory is mapped onto human anatomy and the functions of human bodies, or living bodies in general? What happens when we substitute "electricity" for other concepts associated with bodies, such as "spirit," "soul," "animation,"

"enlightenment," or "enthusiasm," just to name a few? How does usually invisible and always incorporeal electrical "fluid" (presumably flowing in a "current" between "poles"), become conflated with the properties and functions of water, blood, saliva, or other ordinary bodily fluids, despite having little else in common with them? How might these semantic moves engender, create, or reveal moments of analogical or metaphorical slippage? What might be some consequences of this slippage for our ways of thinking about our own corporeality?

Moreover, to what extent is scientific discovery preceded by and informed by metaphorical thinking? While some might like to think of scientific discovery as free from metaphorical thinking, grounded purely in logical analysis of collected observations and data, this may not always be so. In fact, sometimes metaphor— or, to think of it in another way, hypothetical, imaginative, speculative thinking associates dissimilar objects or concepts in ways that engender scientific discovery. Such metaphor or speculation could bring about accidental discoveries that might not have otherwise been foreseen or made possible.

Such was the case in the discovery of electromagnetism. Danish scientist Hans Christian Oersted, credited with the 1820 discovery that electricity and magnetism were inherently connected as part and parcel of the same unified force, in fact accidentally stumbled upon this discovery. He had long imagined and speculated that electricity and magnetism were not only similar in their properties but indeed one in the same force, without the benefit of any hard evidence or data to support this position. We may understand his hypothesis in the form of a simile: electricity is like magnetism (or vice versa). Similarly, both forces resembled each other because both
were thought of as moving in flows or currents, like a fluid, yet invisible. But what if we transform this linguistic formulation into metaphor? What if, instead of claiming that electricity is *like* magnetism, we simply say electricity *is* magnetism? In this way we begin to see how thinking in terms of metaphor might help us to render further hypotheses, which might be tested in order for the observer to seek what comes to be understood as truth.

For Oersted, he began thinking from just such a metaphorical standpoint. Rather than being satisfied with observing that electricity and magnetism had similar properties, he instead began with the proposition that they were perhaps interchangeable, that they were part of the same force. As physics professor Gerrit Verschuur explains, Oersted began 1820 with a lecture in which he "stat[ed] that there had to be a connection between electrical and magnetic phenomena" (59). Oersted had nothing to go on to prove his position other than his belief and his suspicion that a strange phenomenon—namely, that ship's compasses went awry and had to be remagnetized if the ship happened to be struck by lightning—must expose some inherent relationship between electricity and magnetism, forces which had heretofore been understood as separate and discrete. He finally achieved his discovery unintentionally through experimentation. Operating under his suspicion that the application of electrical current might have an effect on the magnetic needle of a compass, he attempted to prove this point by making a demonstration of this before an audience without ever trying it out first in private. The results were unimpressive, as the compass needle only "deflected slightly" under the application of electrical current, but the results were the same: unbeknownst to Oersted or his audience at that

time, "the world's first demonstration of the bond between electricity and magnetism occurred before witnesses" (Verschuur 60). Such a case serves as a vivid example of how metaphorical, speculative thinking could actually help scientists stumble upon truth.

At the same time, metaphor and speculation can sometimes prove problematic with regards to science. Sometimes associative leaps fail to cross logical chasms, therefore leading to false propositions, or misguided understandings. It is understandable why scientists would attempt to perform their work in a language free of metaphor and speculation, even if that proves to be largely an impossible task. For every Oersted who might accidentally stumble upon a major scientific discovery informed by metaphorical or speculative thinking, there may be hundreds of other scientists who are led down unfruitful paths by making assertions grounded in metaphor or speculation that in the end do not match up to reality when challenged and tested by experimentation.

The pseudosciences around electricity, magnetism, and the body pseudosciences that emerged almost immediately after Franklin made his discovery that the electricity of a lightning bolt was the same electricity which could be generated and contained in a laboratory setting— serve as examples of logical overreach and misguided speculation. No sooner did Franklin make his discoveries about electricity than he was approached by such speculators, motivated by suspect and faulty logic, who looked to employ electricity for its supposed healing effects on the body. Could electricity provide a long-awaited panacea that might cure health problems? Franklin was skeptical of this, but his skepticism did not prevent others to

imagine how electricity might be applied to the body for medical—or, to be more precise, pseudo-medical—purposes. Unconvinced as Franklin was by the supposed healing properties of electric shocks applied to the body, he nonetheless continued to use electricity for medical purposes on those who requested it (Delbourgo 205). The pseudoscience of medical electricity was born, and it was used to treat all manner of ailments. In large part it was adopted as legitimate medicine by prominent physicians both in America and abroad, including such notable figures as Erasmus Darwin, who for his part straddled the fields of science and literature, writing poetry that adopted concepts borrowed from the emerging study of medical electricity, and even suggested an essential link between electricity and the creation of life itself³.

Meanwhile, Franz Anton Mesmer and his followers similarly applied knowledge from the burgeoning field of magnetic theory to establish the pseudoscientific theory of animal magnetism, that bodies were composed of magnetic fluids that could be brought back into balance by the skilled physician, who would restore the body's harmony by applying motions of the hands over the affected body parts. Strangely, such virtual laying on of hands would be followed up by playing of Franklin's armonica, implying that some mysterious connection must exist between the practice of Mesmerism and the man who was one of the most well-known pioneers of electrical theory—and one of the most recognized faces of medical electricity—at

³ In Canto III of his epic poem *The Temple of Nature*, entitled "Progress of the Mind," published posthumously in 1803, Darwin draws connections between electricity and the origins of life by suggesting that the two supposed fluids of electricity (the "resinous and vitreous fire") may have "through Galvanic chain-work" brought about "the first spark," which "lighten'd into Life": Then mark how two electric streams conspire/To form the resinous and vitreous fire;/ Beneath the waves the fierce Gymnotus arm,/And give Torpedo his benumbing charm;/ Or, through Galvanic chain-work as they pass, /Convert the kindling water into gas./How at the poles opposing Ethers dwell,/Attract the quivering needle, or repel./How Gravitation by immortal laws/Surrounding matter to a centre draws;/How Heat, pervading oceans, airs, and lands,/With force uncheck'd the mighty mass expands;/And last how born in elemental strife/Beam'd the first spark, and lighten'd into Life.

that time. Although Franklin and others denounced Mesmerism as bad science, their denunciation neither stopped Mesmerists from enticing sufferers of sundry ailments to continue seeking their mysterious cures, nor stopped Mesmerism from influencing new generations of Americans, well into the 19th century and beyond.

Long before Oersted stumbled upon his discovery of electromagnetism, Mesmer already believed in some correlation or association between the two. As Daniel Tiffany points out, in his 1779 treatise *Mémoires sur la découverte du magnétisme animale,* Mesmer made the following claim among his 27 propositions about animal magnetism:

21. This system will furnish new insights into the nature of fire and light, as well as the theory of attraction, of the ebb and flow of things [*du flux et du reflux*], of magnetism, and of electricity. (142)

Despite the fact that Mesmerism was for all intents and purposes a hoax, Mesmer was at least partially correct in hypothesizing that the principles and characteristics of magnetism and electricity were essentially connected. At the same time, his spurious claims led him to apply magnetic and electrical "theories" to the human body in ways that propped up unfortunate stereotypes about the female body in particular, while also underscoring popular yet unfounded images of the body as surrounded by "atmospheres." As Tiffany writes, "the fundamental link observed…between the 'magnetic cure' and corporeal 'vapors' or atmospheric properties leaves no doubt that

the discourse of 'animal magnetism,' by seeking to moderate the hysterical climate of the female body, treats the body as a meteoric phenomenon" (141).

Oersted's later discovery that electricity and magnetism were two parts of the same force, known as electromagnetism, lent the proponents of Mesmerism or "animal magnetism" more authority and legitimacy. The Danish physicist's confirmation of the long awaited connection between electricity and magnetism was quickly followed up by the breakthroughs made by Michael Faraday, the celebrated English scientist, some of which led to the creation of electrified machines that made the modern industrial age possible. While it may be argued that Oersted's initial logical leap sparked electromagnetic theories that would lead to revolutionary steps forward in technology in the coming decades, such as the electric telegraph, proof of the connection between the two forces also served as fodder for pseudoscientists. If electricity and magnetism were inherently connected, then couldn't it follow that legitimized medical electricity could be inherently connected to animal magnetism, previously the object of intense derision among much of the established scientific community? Could there be some truth to Mesmerism after all?

The apparent connection between electricity and magnetism also promised evidence of a single grand unified theory that would explain all life, a belief sought out and held not only by Oersted but also by many other respected scientists and natural philosophers of the early part of the nineteenth century. Ralph Waldo Emerson, whose literary career coincided with the era of scientific discoveries in the field of electromagnetism made by Michael Faraday and others, was particularly intrigued by the idea of a single unified theory of life, and took particular interest in

these developments. He was most certainly drawn to the work of Romantic predecessors such as Samuel Taylor Coleridge, who for his part largely subscribed to such theories, and was eager to understand life itself as guided, generated, and influenced by electromagnetic forces and processes. Emerson scholar Eric Wilson notes that Coleridge argued in his 1825 work Aids to Reflection that "forms of organisms are evolved from an 'invisible central Power', an 'unseen Agency'" (3). Such an "agency" was understood by Coleridge as "weav[ing] its magic Eddies' through plants, animals, humans, animating and metamorphosing them'" (qtd. in Wilson 3). Patrick Keane is one among many scholars to note the powerful influence that Coleridge's work had on Emerson's thinking, noting his mention of his depth of "interest" in the work in an 1830 letter (64). Citing the scholarship of Robert Richardson, Jr., Keane mentions the "electric effect" that Coleridge's work had on Emerson (65). More so even than finding a single theory, an "invisible central power," that would explain all life and animation, Emerson was interested, as was Hans Christian Oersted, in the idea of unification of literature and science, a blurring of boundaries and classifications of knowledge.

In 1833, Emerson wrote in his journal that he thought that Faraday had possibly uncovered the "secret mechanism of life & sensation [in the] great long expected discovery of the identity of electricity and magnetism" (Wilson 12). Inspired by the various threads of thought circulating around the significance of the discovery of electromagnetism, both scientific and pseudoscientific, Emerson thus incorporated and synthesized such thought in his writing. But to what extent did his thought on such matters rest or rely upon "crude and hasty thoughts"? To what extent did

Emerson, in his haste to employ and apply metaphors of electromagnetic corporeality to his thinking about the relationship between the poet and nature, engender his own metaphorical slippage? What discoveries or misprisions might result from such slippage, and what effects might these have over the long term, not only for the literature and philosophy that would follow in Emerson's wake, but for American culture in general? These questions are central to my work here.

Turning to antebellum American literature as test case, then, my study will examine analogical or metaphorical slippage around electricity, electromagnetism, and an attendant discourse of embodiment. I will focus my attention and analysis primarily on three major works of antebellum American literature: Ralph Waldo Emerson's first and second series of essays, Herman Melville's Moby-Dick, and Walt Whitman's 1855 edition of *Leaves of Grass*, each containing both explicit and implicit references to electricity/electromagnetism. When Emerson writes in "The Poet" that "man is the conductor of the whole river of electricity," or when Melville writes in "The Quarter-Deck" chapter of *Moby-Dick* that Ahab "...shocked into [his ship's mates] the same fiery emotion accumulated within the Leyden jar of his own magnetic life," or when Whitman "sing[s] the body electric," in what sense do we understand these references as examples of metaphor or analogy, and to what extent do they exemplify moments when distinctions between the "metaphorical" and the "real" become lost? How is electricity or electromagnetism indeterminate in these examples, or what part do these formulations play in the larger weave of these texts' indeterminacy? How do these constructions of electricity and electromagnetism, working at a cross-roads of radical unknowability, both reflect and inform changing

conceptions of corporeality in American culture? How, in these examples and elsewhere, does the slippage that electricity engenders reformulate what it means to be an animated human body, or rearticulate what electrified or conductive bodies might signify?

By asking such questions, my work takes literary theorist Barbara Herrnstein Smith up on her invitation to both "figure" and "refigure" the relationship between the humanities and the sciences, by showing how, at a crucial point in our nation's history, these two supposedly distinct areas of academic study were—and are—both integrally linked and mutually instructive. We would be wise to remember that in the late eighteenth and early nineteenth centuries, many of those whom we might today refer to as "scientists" took strong interest in poetry and literature, just as men and women of letters of this same era found fascination in the sciences. This is exemplified by the literary work of the English physician and medical electrician Erasmus Darwin, who frequently wrote poetry in which electricity is a recurring theme, or the Danish physicist and discoverer of electromagnetism Hans Christian Oersted, who also wrote poetry and who, according to Andrew Wilson, "had a deep and lasting interest in aesthetics and poetry which, over the years, occupied him as much as his work in natural science" (629). We may pause to reconsider the work of English Romantic poet Samuel Taylor Coleridge, whose strong interest in the sciences led him to argue in his *Theory of Life* that "a new light was struck by the discovery of electricity, and, in every sense of the word, both playful and serious, both for good and for evil, it may be affirmed to have electrified the whole frame of natural philosophy" (31), or find further meditation on the words of Percy Bysshe Shelley, when he argued that poetry

"is at once the centre and circumference of knowledge; it is that which comprehends all science, and that to which all science must be referred" (55). It is my hope that my study will reveal how such intermingling of scientific and literary discourse are synthesized in the works of American writers such as Ralph Waldo Emerson.

This work builds upon a growing body of scholarship that undoes previous stereotypes that characterize American Romanticism as somehow galvanized against science or technological progress. Rather, I would show how the aesthetics of writers of the American Renaissance were formed and formulated very much in relation and in conversation with emerging scientific and technological discourse of the antebellum era. While Leonard Neufeldt noted over thirty years ago that the subject of Emerson's "endorsement of the possibilities of technology and science for the individual and the culture" had "rarely been treated in American scholarship" (330), this is certainly not true today. With the emergence of Cultural Studies, and with the growth in "interdisciplinary" scholarship in literature and the humanities, the past decade and a half has witnessed entire books written largely on the subject of Emerson's synthesis of Romanticism with emerging science and technology, such as Laura Dassow Walls's *Emerson's Life in Science* (2003), or Lee Rust Brown's *The Emerson Museum* (1997). The effects of scientific and pseudoscientific electrical theory on the literary imaginations of Emerson and other antebellum writers has likewise begun to be investigated at some length in a number of recent scholarly articles and conference papers, and in books such as Sam Halliday's Science and Technology in the Age of Hawthorne, Melville, Twain, and James (2007), or Paul Gilmore's Aesthetic Materialism: Electricity and American Romanticism (2009).

Extending beyond the scope of James Delbourgo's work, which deals primarily with eighteenth-century America, I would reconsider his historical metaphorical tie between "electricity" and "enlightenment" and apply this to a rethinking of the philosophy and aesthetics that informed antebellum American literature, investigating how this sometimes clumsy and often incongruent link between "electricity" and "enlightenment" manifests itself, and determining what, if anything, might be considered as shockwaves emanating from these manifestations. My approach differs from others in this emerging sub-genre in this way: by outlining a trajectory along which electricity and electromagnetism passed through various stages of linguistic invention and conceptualization, as it moved—sometimes back and forth-from science to pseudoscience, from corporeal analogy to practiced medicine, I examine how American literary figures imagined, invented, reiterated, and mythologized electromagnetic corporeality. At the same time, I trace the movement of electromagnetic tropes as they passed from "effective metaphor" to "effaced metaphor," to borrow terms used by Jacques Derrida in his well-known essay "White Mythology."

Some recent criticism on antebellum writers who employ electromagnetic tropes might have us believe they would become "linguistic electricians," so to speak. In other words, such criticism would have us understand that writers such as Emerson refer to electricity and deploy terms borrowed from electromagnetic science in order to develop an "electric style" that would excite and electrify their audiences, both in the literal and figurative sense of the term. In contrast to this approach, I argue that by confusing a writer's formal and aesthetic concerns with his desire for actual or

imagined "electrification" of a reading or listening audience, such criticism too hastily and willingly literalizes the metaphorical as it fails to distinguish or differentiate linguistic play from scientific hypothesis. My departure from Eric Wilson's work on Emerson is a case in point. In his book *Emerson's Sublime Science*, Wilson stands out as a prime example of a scholar who, noting that "critics…have overlooked [Emerson's] interest in electromagnetism" (12), pursues a direct and focused examination of the significance of electromagnetic references found in Emerson's work, arguing for example that

> ...tracking the confluence of European Romanticism and electromagnetism in the young Emerson's work reveals an Emerson who...unsatisfied with mere speculation about the animating principle of life....wanted hard scientific proof for the ideas of his Romantic predecessors...[and] had very specific scientific information in mind when celebrating 'energy' in nature and language." (12)

While Wilson employs this argument to applaud Emerson's own genius, by pointing to his ability to weave "electric words"—or, to put it differently, to strike literary gold—by employing concurrent electromagnetic theory while simultaneously tapping into more ancient, alchemical, mystical traditions (in what Wilson terms a "new hermeticism"), and by finding what Wilson calls "alembics"—distillations or loci of experiences that would allow him glimpses of the infinite totality of the sublime—I argue instead that it is precisely Emerson's conflation of literal electromagnetic

activity (as exemplified by transcriptions of experiments in scientific literature), with figuratively or metaphorically corporeal electromagnetism (as represented in poetry and prose ranging from that of Erasmus Darwin, to Samuel Taylor Coleridge, to Percy Bysshe Shelley, just to name a few examples) that opens the door for further ambiguity, contradiction, and confusion around the body's power to conduct and transmit electromagnetic energy. Far from trying to prove or disprove Emerson's own literary genius (or that of other antebellum American writers), my approach would rather focus on the ways that misprisions and conflations of literal and metaphorical electricity, as expressed in literature, helped pave the way for the notion that one's "genius" might be measured in volts, amperes, or ohms, or that one's superior electromagnetic conductivity relative to others could be read as an outward sign of inner, inherited genius—a chilling sign in the context of a culture in which phrenology was becoming an accepted and acceptable practice, and eugenics lay on the horizon.

Given emphatic claims made in recent scholarship with reference to the influence of electricity, the early electricians, and their inventions on understandings of the Age of Enlightenment and the emergence of America as both a sovereign nation and as a cultural concept, it must be underscored that the link between corporeality and electromagnetism is no small matter when one considers its relevance to formulations of American cultural identity. In *Stealing God's Thunder*, historian Philip Dray writes that Franklin's invention of the lightning-rod was "a moment in history as epochal as the birth of Jesus Christ" (xvii). Steven Johnson does no less than to credit Joseph Priestley's curious blend of politics and science with the "birth of America." Such strong statements beg fresh inquiry, bringing one to consider how

scientific and pseudoscientific notions of electricity and electromagnetism—and the analogies and metaphors that they inspired—informed later formulations of corporeality, subjectivity, and identity.

Interrogating these aforementioned examples of "electricities," we may ask: why it is that electricity is so readily adaptable to incongruent analogies and contradictory conflations of literal and metaphorical registers? Given electricity's problematic definitions and its resulting indeterminacy, how can one begin to write about or speak of electricity and its effects on the body without contending with claims such as that made by Rudolf Steiner in 1923, when he wrote that "when we speak of electricity, we enter a sphere that presents a different aspect to the imaginative vision than that of the other spheres of Nature"? Entering such a "sphere," one who speaks of electricity would seem to require a different vocabulary than that used to describe other natural phenomena. It is electricity's incorporeality despite its corporeal effects—that lends it the privilege of being distinguished from other natural phenomena, sometimes allowing room for magic and mysticism to reside comfortably alongside established scientific theory and process. Consequently, our ability to define electricity precisely is confounded by the metaphors and clichés that have obscured, transformed, and multiplied its original meanings. So when we speak of an "electrifying" public speaker, a romantic "spark" between new lovers, or a "lightning-rod of controversy," is it not true that we are no longer speaking of actual electrical conductivity or transference of electrical charge, but rather we are applying a quasi-electrical vocabulary to describe phenomena which have nothing or little to do with actual electrical processes?

Keeping in mind the "dead metaphors" of electricity that continue to be invoked in our language and culture, we may be reminded of Jacques Derrida's employment of this term in his essay, "White Mythology." More specifically, how is it that examples of metaphors of electromagnetic corporeality serve as demonstrations of what Derrida refers to as "effaced metaphor," or "white mythology"—"metaphysics which has erased within itself the fabulous scene that has produced it" (11)? Today's television commentator may think nothing of referring to the "electric" or "magnetic" qualities of a performer or celebrity while failing to be fully cognizant of the historical and cultural contexts, the complex intertwinings of narrative threads, or the discursive stakes, that enabled such associations to be made. Terms which were once used specifically in the eighteenth century to define and describe specific scientific phenomena, such as attraction between elements, were almost immediately used metaphorically to represent attractions between human bodies, such as sexual attractions, or attractions to compelling personalities. Not long after, electricity was a word also used to describe some essential quality of life itself, giving name to some animating force, some vitality, some vigor or enthusiasm that was somehow in want or in need of a name.

As metaphor piled upon metaphor in ever increasing layers and striations, the sense became lost that these associations were indeed metaphorical and not in fact representative of real, observable natural phenomena. This paved the way for pseudoscientific medical electricity or animal magnetism, both of which would have us believe that manipulations of electrical or magnetic energies in a human body could somehow restore that body to health. As science went on to prove that human bodies

were indeed electrical and magnetic, while at the same disproving many of the pseudoscientific theories that would use electrical or magnetic language to justify their dubious practices, it also created further confusion. As many doctors continue to use electromagnetic impulses to treat or cure their patients, with the full backing and support of the scientific and medical community, we may wonder if the practitioners of animal magnetism were on to something, even if their practices were suspect or lacking in medical merit. This opens the door to the question: could it be that those who originally deployed electrical and magnetic vocabulary in a metaphorical sense could have actually been more correct and literal in their observations and commentary than even they themselves ever imagined? Perhaps so, yet such a line of questioning would forget, or erase, the illusions that formed the basis of these truths, or perhaps form the basis of all truths. As distinctions between literal and figurative "electricities" became somehow lost through a process of slow but steady effacement over the last two and a half centuries, like Derrida we may quote Nietzsche in observing that "truths are illusions of which one has forgotten that they are illusions" (15).

The modern day commentator who would drop clichéd references to electromagnetic corporeality into a conversation about a pop star or a politician would likely neither recognize his or her statements as a culmination of a longstanding discursive history, nor care whether or not they were based in any concrete scientific truth. Or, to be more precise, such commentators would not necessarily find the distinction between the literal and metaphorical register to be very important, as the general thrust of their ideas would likely be conveyed effectively without being called

into question. If Forbes magazine calls Beyoncé's 2013 Super Bowl Halftime Show performance "electrifying" (as it did⁴), does it really matter if she literally electrified any audience members? Does it matter that such a cliché has a long and complex history, one which would interweave corporeal electricity with libertine sexuality? From a 21st century perspective, the effect is the same: she excited the enthusiasm of her audience, stimulating a neural response akin to electricity, therefore, even if she did not in fact directly transmit electromagnetic energy from her body to those of her viewers, the apparent likeness of "electricity" with "enthusiasm" makes the association between the concepts stand, irrespective of whether or not such association accurately reflects reality. An antebellum American audience, on the other hand, might actually believe that a performer like Beyoncé could be imbued with electrical charge and be able actually to convey that charge to others through her performance. Similarly, when Joe Biden referred to Barack Obama's "spine of steel" in his speech at the 2012 Democratic National Convention⁵, praising the "courage" in the president's "soul," he was unlikely unaware of the genealogy of such metaphor, likely unaware of how it would resonate with statements made by American writers of the antebellum era, such as Ralph Waldo Emerson or Henry David Thoreau, who would similarly praise individuals who possessed a "lightning-rod" spine. The primary difference here is that while 21st century audiences would never dream that Biden was actually speaking literally in this instance (i.e. they would not think the vice president was

⁴ See images published by *Forbes* under the title "Beyonce's Electrifying Super Bowl Halftime Performance," 3 Feb 2013, at http://www.forbes.com/pictures/ehlm45jgmm/pepsi-super-bowl-xlvii-halftime-show/

⁵ The full transcript of Vice President Biden's speech may be found, for example, at the following webpage, published by National Public Radio on 6 Sep 2012 under the title "Transcript: Vice President Biden's Convention Speech," available at http://www.npr.org/2012/09/06/160713378/transcript-vice-president-bidens-convention-speech

implying that the president actually had a spine composed of steel, or had a steel rod implanted in his body), antebellum audiences might very well have believed that one who possessed what we might today call an "iron will" might have actually possessed a spine that was both conductive and protective in nature, very much like an iron lightning-rod, if not in fact a lightning-rod itself. These examples illustrate how today's clichés may have originated in tentative scientific hypotheses of a bygone era, just as scientific hypotheses may find inspiration or grounding in the illusions offered by metaphor. In this way, "illusions" and "truths" oscillate and exchange positions over time.

As "electricity" evolves into cliché and dead metaphor, it becomes increasingly indeterminate—or multideterminate—as it continues to be reinvoked and reanimated in discourse. So, is it reasonable, then, to consider Whitman's "body electric" an "effective metaphor"? Or is it already an example of "effaced metaphor," metaphor for which distinctions between truth and illusion have been worn away due to long use and abuse, an erosion of an expression once freshly coined? Has electricity followed the natural course of metaphors, in what Derrida, employing a reference to Hegel, describes as a movement that "pass[es] from a proper sensible meaning to a proper spiritual meaning through a figurative detour" (25)? Or, defying Hegel's formulation, does electricity stand as an example of a word that oscillates fluidly between the figurative and the literal, between the sensible (the physical sensations associated with substantial entities, forces, or magnitudes) and the spiritual (the thoughts we might associate with that which belongs to the realm of the metaphysical, ethereal, or otherwise invisible)?

By studying the effects of electric and electromagnetic analogy and metaphor in literature concurrent with and subsequent to the era of electromagnetic discovery in the antebellum period, I would argue that by the age of Whitman, such metaphor had already begun to evolve into what Derrida might refer to as "effaced metaphor." In so doing, I hope to uncover and reveal that which has been erased and effaced, i.e. the "fabulous scene" that preceded clichés of bodily electricity and electrification in the palimpsest of the English language, and, moreover, in that of American culture.

Why electromagnetic metaphor is relevant to formulations of embodiment is tied to a recurring principle that emerges from recent theories of the body: that the body is a site where cultural conflicts and social tensions, centered around power relations, are negotiated and worked out. Sociologist Bryan Turner, writing on the body and culture, describes "traditions" in the sociology of the body: first, that the body is a "carrier or bearer of social meaning and symbolism" (26), and secondly, that the body is "a system of signs which stand for and express relations of power" (27). Such traditions inform my approach to this study as I am interested in the ways in which bodies are socially regulated and self-regulated according to metaphors associated with bodily characteristics. As electricity is identified in the eighteenth century as a "fluid" and is later understood to flow alongside or in conjunction with other bodily fluids, I aim to investigate how this new concept disturbs, reiterates, or reconfigures ancient mythologies and metaphors associated with bodily fluids. In Technologies of the Self, Michel Foucault introduces the idea of "technologies of power," or technologies "which determine the conduct of individuals and submit them to certain ends or domination, an objectivizing of the subject" (18). With this

definition in mind, we may consider how antebellum American writers deployed imagery and metaphors suggesting the relationship of the body to emerging technologies of electricity and electromagnetism in order to reconfigure relations of subjects to objects, and vice versa, in order to subvert or resist existing "technologies of power." In this way, their application of electromagnetic theory and its associated metaphors to understandings of corporeality anticipates Foucauldian "biopower" or "biopolitics." I explore the ways in which antebellum American literary figures such as Walt Whitman used electromagnetic metaphor and analogy to imagine or envision something closely resembling what Foucault describes as "technologies of the self," defined as that which would "permit individuals to effect by their own means or with the help of others a certain number of operations on their own bodies and souls, thoughts, conduct, and way of being, so as to transform themselves in order to attain a certain state of happiness, purity, wisdom, perfection, or immortality" (18). Yet I would at the same time examine some of the problems inherent in this attempt, as these antebellum writers reinscribed "technologies of power" in this process.

One might describe my approach as transdisciplinary, insofar as the literature that I will analyze was written by authors who likewise took what we may call in contemporary terms transdisciplinary approaches to understanding the natural world and the place of language in that world. Somerville and Rapport's collection of essays entitled *Transdisciplinarity: Recreating Integrated Knowledge* is especially helpful here: "transdisciplinarity dissolves the boundaries between disciplines and creates a hybrid which is different from each constituent part" (xiv). While today we might take for granted the notion that fields of study in the realm of science and in that of

humanities are distinct and separate, for antebellum American writers this distinction was less clear, as the boundaries to which Somerville and Rapport refer had not yet developed to the extent that they have today: in fact, in the earlier nineteenth century, such boundaries had been actively resisted. My interest in and research of electricity and its manifestations in literature has thus naturally led me toward a transdisciplinary approach, and, moreover, demands such study. Self-described "scientific," "historical," or "philosophical" texts may thus be placed into conversation with "literary" texts, in order to see what insight might be gained by crossing or dissolving boundaries between these various manifestations of literature or narrative.

Resisting a New Critical or formalist approach to literature that would see meaning as produced inherently in the arrangement of a given text, free from its greater cultural and conceptual context, I am also interested in the ways in which literary works are products, manifestations, and representations of dynamic cultural movements in states of tension or conflict, movements which can be "read" or analyzed like texts. Furthermore, I am particularly interested in the ways that various literary narratives may reveal flashpoints in the construction of myths by which we come to understand our world. In these ways, my project's methodology may be broadly called a "cultural studies" approach. In his introduction to *The Cultural Studies Reader*, Simon During writes that "we need to think of cultural studies not as a traditional field of discipline, nor as a mode of interdisciplinarity, but as...as a field within multidisciplinarity" (27). He goes on to write that "the point [of cultural studies] is not so much to dismantle boundaries as to be able to move across them; the aim is to transport methods and attitudes from cultural studies where they are

appropriate, but also to be able to forego them when they are not" (27). In "moving across" disciplinary boundaries, I aim to unravel and deconstruct prevalent distinctions between science and culture.

Embracing transdisciplinarity and the founding tenets of cultural studies while also informed by Derridean notions of metaphor and Foucauldian approaches to embodiment, then, I bring the works of Emerson, Melville, and Whitman into conversation with concurrent antebellum discourse in the fields of electricity and electromagnetism. In the chapters that follow, I closely examine vital moments in Emerson's essays, in Moby-Dick, and in Leaves of Grass, drawing these texts into encounters with electrical and electromagnetic discourse as manifested in the popular culture of the time, as well as in material culture, newspapers, scientific and literary journals, and other concurrent literature. Finally, I investigate how a nineteenth century discourse of electromagnetic corporeality had residual effects on American popular culture of the past century, by examining the example of iconic American entertainers Elvis Presley and Marilyn Monroe, both of whom were frequently noted for their supposed bodily "electricity." In doing so, I demonstrate how twenty-first century notions of corporeality and electricity are informed by an earlier discourse that is represented by flashpoints I identify in works composed by the three major antebellum American writers whom I study.

In Chapter One, "'Conducting the Whole River of Electricity': Bodies in Emerson's Electromagnetic Fields of Play," I turn to Ralph Waldo Emerson's essay "The Poet," where Emerson writes that "man is the conductor of the whole river of electricity," and consider how this anticipates his assertion in "Conduct of Life" that

"the best lightning-rod for your protection is your own spine." Clearly, in these and other examples, we find that electricity and electromagnetism are recurring themes in Emerson's work, as amply demonstrated by Eric Wilson and others. Emerson undoubtedly had avid interest in this burgeoning field of science, and followed closely the work of contemporary pioneers in the field such as Michael Faraday. But to what extent does he employ metaphors of electromagnetic corporeality merely for their potential for dramatic and vivid literary effects, and to what extent does he employ such metaphors to offer or test earnest scientific hypotheses? For example, does he sincerely offer the hypothesis that one must possess excessive electrical conductivity in order to excel as a poet, or do his metaphors merely provide him the vivid poetic imagery that might help him to persuade his audiences in a fresh and novel way? Does his playful approach to this subject render his claims more malleable and flexible than they would otherwise appear at first glance?

Whereas Wilson would chiefly answer such questions by suggesting that Emerson harvested or harnessed electricity in the creation of an "electric" literary style, I take issue with this approach and instead attempt to show how Emerson, playfully synthesizing various strands of electrical and electromagnetic theory, from Swedenborg, to Kant, to Schelling, to Coleridge, to Oersted, proffers a vision of the ideal human body as a kind of "superconductor" of divine energy. In so doing, he both reflects and builds upon concurrent scientific and pseudoscientific discourse on electromagnetic corporeality, testing out and experimenting with these ideas, while in this process offering a mythologized vision of the electrical or electrified body. Furthermore, I show how Emerson, reconfiguring and revising over a period of many

years a conversation with his friend Henry David Thoreau on lightning-rods and the body, stumbled upon a seductive and powerful image of the body as its own best lightning-rod, able to conduct and convey electrical current without harm, much like the mythologized body of Franklin that is the focus of Benjamin West's painting. Far from subscribing to this mythology, however, Emerson both plays with and plays upon it for its literary effect, without actually "drawing electricity from the sky" and conveying it through his language.

Chapter Two, "Daring to Take the 'Full Forced Shock': Emersonian Electromagnetic Corporeality in Melville's 'The Lightning-Rod Man' and *Moby-Dick*," asks whether Melville's work in *Moby-Dick* is typical of other concurrent seanarratives, as Hester Blum would suggest, as he empirically documents the particulars of life at sea in order to contemplate revisions or reconfigurations of a larger philosophical or metaphorical framework. If so, to what extent does Melville's deployment of metaphors and imagery associated with electromagnetic corporeality demonstrate his efforts at offering commentary or questioning of existing discourse on that subject, as represented, for example, by the conversation between Emerson and Thoreau that I discuss in Chapter One?

Electromagnetic corporeality undoubtedly plays a crucial role in both Melville's novel and his short story, revealing an avid interest in the subject that rivals that of Emerson, which may be representative of a larger fascination maintained by the American reading public in the antebellum era. Electromagnetic corporeality plays a significant role in some of the most dramatic scenes in the novel, perhaps most notably in the fact that Ahab's own body is marked by a lightning-like scar that runs from

head to foot, evidencing his survival of an earlier encounter with a lightning-bolt, much as Franklin somehow survived his encounter in the kite experiment. In the pivotal chapter "The Quarter-Deck," in which Ahab finally reveals to his crew his true intended purpose for the voyage of the *Pequod*, he passes "the full-forced shock" of "[his] own electric thing" into his ship's mates when he touches the tips of their crossed harpoons and thereby "shock[s] into them the same fiery emotion accumulated within the Leyden jar of his own magnetic life," intimating that Ahab's magnetism, along with his earlier encounter with electricity and survival of its effects, rendered him capable of literally conveying that electromagnetic energy to the bodies of other individuals. Another moment of intensity and drama occurs in "The Candles," in which Ahab orders Starbuck to let the lightning rods be rather than lowering them into the water so that they might protect the ship from the onslaught of corpusants that threaten to set the ship aflame and rend it asunder. We may wonder in this case if we should applaud Ahab for his fearlessness in the face of impending catastrophe, or if we should be fearful of his seeming irresponsibility and carelessness, given the lethal danger that looms.

In these and other instances in this novel—as well as in the short story "The Lightning-Rod Man"—issues of place become central and defining questions. Both the novel and the short story would have us ask ourselves: are we to feel at place and at home in our own bodies, given the threat of natural danger such as lightning strikes? Or, in the age of advanced technology that might protect and insulate us from harm, should we feel out of place, fearful, and endangered without that protection? Would it be better to be self-reliant and feel comfortable in one's skin, daring to take the "full-

forced shock" without the insulation that lightning-rods and other protective devices might offer, or would it be better and wiser to depend and rely on such technology? Could a strong-willed, self-reliant, independent individual somehow insulate his or her body from harm, simply by exercising mind over matter, or is such belief merely misguided and wishful thinking, well-suited to a monomaniacal madman such as Ahab? Melville picks up on lines of questioning very similar to those raised by Emerson and Thoreau, and through his literary compositions, tests out that line of questioning against his own experience on whaling ships. At the time when Melville sailed on the open ocean, lightning strikes on ships were extremely common, often with lethal consequences. From his experiences, he would surely know the very real dangers implicit in considering oneself impervious to the threat of lightning strikes. Therefore, as I would argue, he is well aware of the dangers implicit in metaphors that would mythologize the ideal body as a conductor of electrical energy without any insulative protection. Nevertheless, his blending of realism with romantic speculation plays upon, develops, and questions such metaphors when they are considered for their plausibility as scientific facts.

Chapter Three, entitled "The Electrical 'Charge of the Soul': Whitman, Automata, and the Superconductive Body," revisits Walt Whitman's famous phrase, "the body electric." One should not take for granted the long and complex history of the term "electric" and its associations with corporeality. Yet, according to Whitman biographer Jerome Loving, the poem is written when "electric" and "electricity" were still not yet "household words" (202). Therefore, Whitman's composition of the phrase "body electric" is significant and revealing for its novelty. But to what extent

is Whitman's metaphor "new," and to what extent does it reiterate already welltrodden territory? I argue that Whitman employs electromagnetism as a trope in order to attempt to erase boundaries or dichotomies, in the effort of promoting individual freedom and avoiding binding his speaker to a single, culturally defined identity. More importantly though, I argue that his deployment of electrical metaphors illustrates an association between electricity and vitality, where one who possesses poetic genius is a sensing, feeling, writing machine, an automaton who not only conducts Emerson's "river of electricity" but is the electricity, where no distinction exists between subject and object, animator and animated. But is it reasonable, then, to consider Whitman's "body electric" an effective metaphor, as described by Jacques Derrida in "White Mythology"? To what extent, by the time of writing Leaves of Grass, had Whitman already lost a sense of distinction between the real and the metaphorical in relation to electromagnetism? In other words, is he attempting to convey vitality by animating a linguistic device which is already "dead"? And in this process, does his ideal poet somehow become an automaton, or even an "automatic writer"? Does Whitman's work chart a pathway from the animated to the automated, and how does literature, by way of electromagnetic theory, come to be understood as generative and life-giving? What exactly can a poem animate or automate? I attempt to answer these questions through examination of Whitman's association of superconductive bodies with poetic genius.

Chapter Four, "'Driving a Brave Trade': Elvis Presley, Marilyn Monroe, and the Legacy of 'Lightning-Rod Men' and 'Bodies Electric' in America," considers electricity's discursive status in our current moment. While we no longer receive

lightning-rod salespeople at our door, as did the skeptical and resistant narrator of Melville's short story "The Lightning-Rod Man," and while we no longer use lightning-rods as fashion accessories as we might have in the late eighteenth and early nineteenth centuries, we may, if pressed, think of many different incarnations of "lightning-rod men" in our culture, or, at the very least, certainly those who would "drive a brave trade with the fears of man." How are products that would supposedly electrify or magnetize our bodies "correctly"—or images of supposedly electromagnetically supercharged bodies— marketed and sold? How are those who aspire to become artists or celebrities encouraged to perform and embody "electrifying" qualities? Most importantly, how do these cultural phenomena exemplify the manner in which the residue of nineteenth century electromagnetic pseudoscience persists to this day?

I look to the examples of Elvis Presley and Marilyn Monroe to demonstrate how Whitman's imagery of superconductive "bodies electric" resonates with the images of these figures that have circulated and continue to circulate in American popular culture. I ask: how were these images perceived, and how do they continue to be perceived, given changing cultural contexts and new and emerging technologies of the past century? To answer this question, I examine how Americans of the twentieth century came to take for granted clichés regarding what I would call "superconductive" bodies, bodies that are claimed naturally to attract, conduct, and convey electricity more intensely than others. Due to this supposed or imaginary superhuman conductivity or transmission of "electrical energies," such bodies become associated paradigmatically with a host of loosely related concepts, from

enlightenment, to vitality, to sex appeal. In this process, I show how such clichés blur lines between the "real" and the "metaphorical" to the point where meaningful distinctions become lost, forgotten, or elided, where the difference between "reality" and "virtual reality"—or bodies and "virtual bodies"—becomes increasingly hard to distinguish.

While we may find amusement in the naiveté of nineteenth century attitudes toward electricity's "healing" powers, we may be surprised to learn that our understandings of electromagnetic corporeality are still informed-or misinformedby pseudoscience, or by mischaracterizations or problematic characterizations of electromagnetism that were formed in the eighteenth and nineteenth centuries. When we encounter images in the media or in literature of some of the archaic practices of those physicians who used electricity or magnetism to heal their patients, we may scoff, or even laugh, incredulous at the relative ignorance of doctors of a bygone era. Playwright Sarah Ruhl has fun with this topic in her Broadway play "In the Next Room," in which she illustrates how 19th century doctors used electrical instruments to induce "paroxysms" (a.k.a. orgasms) in their female patients, providing them sexual pleasure under the guise of medical care during a time when the existence of orgasms for women was a matter of scholarly debate. Yet this was no laughing matter in the late 19th century, and in fact, as we shall see, there was intense controversy in the medical field over the proper place of electricity as a treatment for gynecological symptoms. Moreover, in laughing at the medical or pseudo-medical practices of the prior century, we may forget not only the longstanding associations made between sexuality, sex appeal, sexual health, and electricity (associations that date to the mid-

18th century), but we may also forget how these associations linger and remain with us today.

Electricity and magnetism are still words used today in association with a sexy, compelling, or otherwise attractive performance, and these associations can be traced to eighteenth and nineteenth century origins. So what are we to make of the images of "lightning-rod men" (and women) or "bodies electric" that continue to be produced, reproduced, repackaged, and resold in our culture? How, when we are presented with images of brains that light up in the presence of assumed neural activity, might we mistake electrification for enlightenment? Is there a difference between the two? How has electromagnetic metaphor and analogy been used and abused in our culture, and to what end? By combining analysis of "superconductive bodies" in American popular culture with analysis of medical literature and scientific journals, I examine this central question: how did eighteenth and nineteenth century "lightning-rod men" serve as prototypes that inform many current characterizations of electromagnetic corporeality?

We may find how electromagnetic corporeality came to be embodied in American popular culture by analyzing examples of twentieth century American celebrities such as Elvis Presley and Marilyn Monroe. Through comparison of these examples to models of electromagnetic corporeality expressed in the culture and literature of nineteenth century America, we will discover how genius and attractiveness (presumably inspired by electromagnetic influence, or control over electromagnetic forces or powers) came to be performed, and what attitudes, characteristics, and behaviors would-be celebrities would adopt in order to conform to

models of electromagnetically influenced genius and attractiveness: in essence, how they would achieve celebrity or the appearance of genius and attractiveness by assuming what we might call electromagnetic affect, by becoming, at least in a metaphorical sense, "superconductive." Moreover, this movement towards desiring electromagnetic, superconductive affect is the result of conflation between electrification and enlightenment that dates to eighteenth century America, exemplified by the Benjamin West painting with which we began this chapter. As we examine the trajectory from Emerson to Whitman, we will see that what began as metaphors that would playfully associate electromagnetic corporeality with genius erode by Whitman's era into conflation or confusion of the two concepts, by which we would understand that a poetic genius is not just a literary aesthetician, but is also an electrician of sorts, who actually conducts and conveys electricity and thereby generates a real, sensual, electrical effect on audiences. While such a poet or performer might *simulate* such an effect, or give the audience the *impression* that this effect has been achieved, it would be a fallacy to claim that actual electricity was conducted or conveyed by either the performer or the audience. In literalizing metaphors of conduction and transmission, such clichés would lead us to forget differences between simulation and reality. Through this effacement, we are left with dead metaphor that may bear little resemblance to reality: "the body electric."

As we trace the history and genealogy of modern day clichés of electromagnetic corporeality, we shall find that each cliché is informed by and embedded within a historical and cultural context of impressive complexity and breadth. Metaphors of electromagnetic corporeality have lives and careers of their

own, traceable to detours and oscillations between the sensible and the spiritual realm. Some anticipate later scientific discovery, and others defy reason and logic, sometimes in ways that could have damaging or even destructive effects. The goal of my project is not, however, to offer a "police of metaphors⁶" that would ban certain usages of metaphors of electromagnetic corporeality while endorsing and preserving others. I am not a "literalist": I don't believe that the distinctions that some scientists would make between metaphor and "reality" are as clear cut or easily classified as they would suggest. "Reality" is constructed through application of metaphorical language that would help us make sense of experience. Moreover, all language is analogous to metaphor. To make our experience and observation coherent to others, we must rely on the medium of language, which itself relies on our belief that a word signifies an object or phenomenon to which it bears no inherent or self-evidently intuited resemblance. That said, metaphor is often informed by—and reflects—aspects of reality, even when it may not seem so at first.

It is impossible to record and communicate empirical observations without relying on metaphor on some level, and, moreover, metaphor is necessary for such recording and communication to occur, just as it was necessary for Franklin to resort to metaphor to make his observations on electricity readily understood. The notion of metaphor-free scientific discourse is a myth. That said, a study of the history of metaphors of electromagnetic corporeality will amply illustrate not only that

⁶ Here I am referring to a phrase used by Bruno Latour in his essay entitled "A Word on Michel Serres' Philosophy." In this essay, he attributes the term to work of philosophers Michel Serres and Mary Hesse. Latour summarizes the term in the following way: "In a position akin to that of Mary Hesse, Serres is not a 'literalist,' believing that there is a strong distinction to be made between literal and metaphoric meaning. Like Hesse, he is not for a 'police of metaphors' that would forbid certain uses and turn others into precise, literal ones" (94).

differences between metaphor and reality exist, but also that these differences matter, and have real consequences. As William Zinsser once said about the difference between "sanguine" and "sanguinary," "the difference is a bloody big one" (9-10).

It is not my goal to valorize metaphors of electromagnetic corporeality in relation to the "reality" of electromagnetic currents that are conducted and transmitted by human bodies. Rather my goal is to show that through literary study, we may discover the varied cultural and historical terrain in which such metaphors took shape, and observe how, through repeated use, these metaphors were transformed into clichés. By analyzing these clichés and discovering how they arose discursively, we may begin to understand the many threads that have been woven over time into concepts and stereotypes. Given the effacement of history that is a chief characteristic of dead metaphors or clichés, we may scrutinize and interrogate that which may otherwise be taken for granted, and in doing so, better understand how such clichés inform our constructions and conceptualizations of our very bodies. Understanding how bodies are socially constructed seems especially crucial at a time when old understandings of embodiment are rapidly being challenged, by means of technological advance, by notions of virtual embodiment. By reconstructing the "coins" of metaphors long effaced and eroded, we may better understand how and why people (and, for the purposes of this study, Americans in particular) talk and think about bodies the way they do when they think of them in terms of electromagnetic forces, and consider the ramifications of such thinking.

CHAPTER 1

"CONDUCTING THE WHOLE RIVER OF ELECTRICITY": BODIES IN EMERSON'S ELECTROMAGNETIC FIELDS OF PLAY

The best lightning-rod for your protection is your own spine.

- Ralph Waldo Emerson

Given nearly universal attribution of the above quotation to Ralph Waldo Emerson, it may be easy to forget that it is actually Emerson's paraphrase of something originally uttered by his friend Henry David Thoreau. In a journal entry dated July 6, 1852, Emerson writes that Thoreau "rightly said, the other evening, talking of lightning-rods, that the only rod of safety was in the vertebrae of his own spine" (435). But, without the full context of their conversation, how are we to understand what may be signified by Thoreau's turn of phrase, and why it captured Emerson's attention so much that he thought to record this observation in his journal? Moreover, what would it mean to say that Thoreau was "right" in making this assertion? Are we to understand this as the shared skepticism of the two men toward the safety and effectiveness of lightning-rods, which were, as Herman Melville's 1853 short story "The Lightning-Rod Man" vividly illustrates, aggressively marketed and sold at that time? Or, are we to understand this concept in another way? Surely, to think of one's own spine as literally the best and safest lightning-rod makes little sense, as conducting the electrical force of a lightning bolt would kill most human

beings, save the rarest of cases. Is the idea suggestive, then, of a need for Emersonian self-reliance in the face of extreme natural danger? A need to eschew overreliance on technology? Or is it suggestive of a rare power of certain select human beings to conduct, control, and convey the most sublime forces of nature through sheer will, strength, and talent?

Despite the apparent pithiness of Emerson's aphorism, it becomes opaque and enigmatic upon further analysis. It is hard to visualize what exactly a "lightning-rod spine" would look like, or why it would be useful. To our 21st century sensibilities, conditioned by vivid science fiction, such an utterance might evoke fantastical images of superhuman cyborgs with mechanized organs and appendages. Yet in the context of antebellum America, we may be led to wonder exactly where Emerson's imagery might lead us. Was Emerson imagining a "lightning-rod spine" as a concrete physical attribute, a desirable characteristic of actual human bodies? Or was such a "spine" more suggestive of a particular frame of mind, like the proverbial "backbone" that weak-willed individuals are often encouraged to acquire? In a time when the increasing popularity of Franklin's lightning-rods was accompanied by similar expansion of both fire departments and fire insurance (also inspired by Franklin), is Emerson's assertion that one may already freely possess a spine that would insulate one from harm (and therefore ensure one's security and comfort) to be understood as a reaction against such fear-induced commercialism and economic expansion? In short, are we to understand Emerson's revision of his conversation with Thoreau as an earnest attempt at scientific hypothesis regarding human biology (i.e. some people have spines which are more resistant to electromagnetic current or which have greater

capacity to withstand its influence), or are we to understand his formulation as a turn of phrase, an example of figurative language used symbolically to convey a certain philosophical attitude that could aid one's survival and success, without any inferences about anatomical or physical differences between human bodies? Both? Neither? While such questions may prove ultimately difficult to settle with any sense of certainty, closer inspection may shed light on Emerson's playfulness with language, as he straddles boundaries between body and mind, science and language, biology and philosophy. As I will argue in this chapter, this playful balancing act reveals the ways in which Emerson toys with science to help us reimagine relations between the body and nature.

Before further interrogating some of the effects of Emerson's playfulness with language and concepts of electricity—or, more tellingly, how this plays itself out in his exchange with Thoreau—we might begin by examining Emerson's own attitudes toward play itself. In a journal entry dated April 19th, 1835, Emerson wrote, "it is a happy talent to know how to play" (470). Happy indeed! We might well remind ourselves, as Emerson's good friend Margaret Fuller did in an 1845 *Tribune* article, of the line from the classic nursery rhyme that reads: "all work and no play makes Jack a dull boy." Speaking of the line, Fuller wrote that we have to "fight a good fight for our amusements, either with the foils of excuse…or the sharp weapons of argument" (qtd. in Zwarg 214). But recent theorists in the emerging field of play studies would go even further, as they would consider play a vital component of cognitive development and argue that play not only offers children (and adults) outlets to express joy and pleasure, but can also lead to creative discoveries. Play, in the form

of pretending and experimentation, can inspire innovation that may not necessarily arise from activities that we might otherwise traditionally classify as "work." Stephen Nachmanovitch, a pioneer in play studies, boldly asserts for example that "all creative acts are forms of play, the starting place of creativity in the human growth cycle" (42). Although Nachmanovitch's claim may strike some of us as revolutionary, many have argued long before him that play is essential to the development of the human mind. In fact, this tradition was very much embodied by philosophers of the Romantic era, such as Kant and Schilling, who served as important predecessors to the thought of Emerson. Matthew Kaiser, a literary scholar who specializes in play studies, argues that "popular debates…reached a boiling point in the nineteenth century about the meaning and value of play as a central component of human experience" (34). If this is so, we may begin to understand why play might be important not only to Emerson's philosophy, but also why it may have informed his approach to writing essays.

While Emerson is certainly careful to temper his enthusiasm for play in his 1835 journal entry by noting that "some men must always work if they would be respectable" (470), he nonetheless does sincerely value play. Yet such an attitude would run counter to the so-called "Puritan work ethic" stereotypically applied to Emerson's early colonial Massachusetts forebears, if not also Emerson and his contemporaries. Subscribers to Max Weber's theories on the subject may assume that an attitude of industrial capitalism, which eschews idleness in favor of productivity and profitability, was the prevailing attitude among American thinkers during the era of burgeoning industry and economic growth that marked the antebellum period. We may easily forget, however, that Weber's phrase was a 20th century coinage,
something neither known to antebellum Americans, nor their colonial counterparts. Still, Emerson's attitudes do occasionally lend credence to Weber's theory and show that, at least in part, he exemplified it. Steeped in the Massachusetts Unitarianism of the First Church of Boston, heir to the original church in which such Puritan luminaries as Increase Mather and Cotton Mather had previously taken the pulpit, Emerson, like his predecessors, does often rail against the idleness and complacency of his fellow Americans. In this way, he recalls Protestant calls for abstinence from the deadly sin of sloth. This is famously evidenced, for example, when he chides the younger set of Harvard scholars in his "American Scholar" address to embrace a vision of the nation in which "the sluggard intellect of this continent will look from under its iron lids." Yet it is intellectual idleness, as was so often the case in the writings of influential American predecessors such as Benjamin Franklin.

Emerson reveals a more nuanced attitude toward play than we might otherwise expect. If we were to limit ourselves to understanding his philosophy as indicative of what Weber and his followers might understand to be the developing American ethos and character in the early 19th century, we might be easily led to conflate Emerson's attitudes with that of a larger "Puritan work ethic" that characterized America of the time, if not also America of today. But it is important to remember that for Emerson, play is not necessarily antithetical to work, in a dichotomy that would view it as an undesirable alternative to more profitable, less wasteful endeavors. Rather, play, in the form of imagination and creativity, could be an engine for intellectual growth that would help Americans to awaken from their intellectual slumbers and think for

themselves, rather than merely reciting inherited dogma. Taken in this light, it is not play which prevents antebellum Americans from prying open their "iron lids," but rather a lack of play and creativity that does so. While Emerson concedes in "The American Scholar" that industry and industriousness abounds in America, he also engages in a jeremiad that bemoans the intellectual laziness that prevents the young nation from achieving "something better than the exertions of mechanical skill." As such, Emerson plays both sides of the coin: he defends "play" as a useful and productive endeavor, while at the same time aligning himself with a mindset that values that which might be more universally and traditionally understood as "work." Yet he is mindful to temper his enthusiasm for play as it is often commonly understood (as a kind of holiday from labor), as play in essence becomes for him a different kind of work, a work that is nonetheless necessary and vital to supplement and ameliorate mere industrial labor and the "exertion of mechanical skill."

Emerson felt a need to temper his enthusiasm for play because he keenly felt the need to distance himself from criticisms of Transcendentalism that would view it as precisely the sort of idle endeavor that would run counter to what from a modern standpoint we might deem the "Protestant work ethic" of the era. Emerson scholar Len Gougeon puts it this way: "Emerson was well aware of criticisms that his Transcendental philosophizing was, literally, a waste of time and energy" (53). Underscoring this point, Gougeon then goes on to offer an example from an 1840 journal entry in which Emerson writes that his "essays [are a] sort of apology to [his] country for [his] apparent idleness." Emerson does not admit to his own idleness caused by engaging his body and energy in philosophical pursuits. Rather, he is

keenly aware of the possibility of that perception among an American public that frequently expresses disdain for sloth. As such, he works actively to resist and combat that perception. It is the labor of literary and philosophical production—and, more importantly, the linguistic and discursive play that work as vital components of that labor—that may then offer ample justification for his activities and his use of time.

For Emerson, then, appreciation of play and playfulness is not limited merely to stealing away to enjoy one's favorite pastime in lieu of physical labor. Rather it embodies a desirable characteristic of literature. We can see this, for example, in his critique of the sonnets of his friend and fellow Transcendentalist, Jones Very, in 1842. In an otherwise generally sympathetic review of Very's work, Emerson notes that the sonnets "have little range of topics, no extent of observation, no playfulness" (161). From this it is assumed that Very's lack of playfulness is a detriment to the quality of his work. We might contrast Emerson's criticism of Very with his praise of his friend Bronson Alcott, when he says of him in 1842 that "where he is greeted by loving and intelligent persons, his discourse soars to a wonderful height, so regular, so lucid, so playful, so new and disdainful of all boundaries of tradition and experience, that the hearers seem no longer to have bodies or material gravity" (226). Emerson reveals his love for playfulness in language in both written and spoken form, by presenting it as a trait worthy of admiration. In Alcott's case, discursive playfulness could, at least in a figurative sense, suspend otherwise immutable laws of physics. Just as Emerson playfully imagines in "Worship" the human being who could defy nature and withstand the force of a lightning bolt, so too does he imagine the human being who through language could defy gravity. But this attitude should not be surprising, for, as

we see expressed elsewhere in *Conduct of Life*, language and play should go hand in hand. For example, in "Illusions," Emerson writes: "tis the charm of practical men, that outside of their practicality are a certain poetry and play" (260). For Emerson, the individual is great who is rigid neither in personality nor in language. In fact, it is this kind of flexibility of belief, playfulness of style, and willingness to "lift a corner of the curtain" that, in Emerson's opinion, makes one truly great or interesting.

This flexibility of belief, or playfulness of style, might be understood in material, physical, corporeal ways as well, however. At a time when outward physical appearance or countenance could represent one's intellectual and emotional makeup, could a person who possesses a flexible spine, a spine with "play," likewise possess a playful, flexible personality? Would a rigid, rod-like spine then be a detriment to one's health or well-being? Would it insulate and protect the individual from harm? Or would the healthy spine be able to oscillate fluidly between states of flexibility and rigidity? Would its ability to oscillate and flow between such states demonstrate its ability to conduct and circulate electromagnetic energy without impedance? Could "playing" with one's spine help these flows to circulate?

Although chiropractic was not introduced as alternative medicine until nearly the turn of the century, we may wonder to what extent Emerson's thinking may have anticipated this field, especially as chiropractic found its origins in pseudoscientific applications of "electromagnetism." This effort is perhaps best exemplified by D. D. Palmer, who wished, like Mesmer and others done had over a century before, to apply these beliefs to "medical" practice. Palmer, widely understood as the founder of American chiropractic, was fascinated with such connections, writing for example that

There is an emanation from us, not magical or miraculous, but a subtle, invisible substance, capable of perception, which consciously or unconsciously magnetizes, influences, more or less, every person and object with which we come in contact. (qtd. in Coddington 94)

As Mary Coddington observes, Palmer "believed that this energy-giving life to the body was actually nerve-force; that it was generated in the cells of the brain and the spinal cord" (95). This in turn would "give power to the organs, as electricity is sent out through wires" (95). By this thinking, the skillful chiropractor could somehow manipulate the spine and by so doing manipulate the life-energy or electricity that the spine might generate or conduct. But Palmer's thinking did not happen by accident; it did not happen in a vacuum. The linguistic play of writers like Emerson paved the way for Palmer and others to find the words and concepts that made their scientific and pseudoscientific "discoveries" possible. That said, Palmer and others like him may have taken leaps in reason and imagination that Emerson himself would have never dreamed of making. While Emerson's playfulness of language around electromagnetism and the body might be understood as representative of a form a conceptual prerequisite for the type of thinking that informed Palmer's later assertions, Emerson himself may have been playful with such thinking without necessarily staking out firm scientific hypotheses and generalizations. In fact, Emerson's tendencies to contradict such generalizations in his own writing may help us to understand his ambivalence or skepticism toward unquestioning scientific application

of such ideas, as well as his pragmatic and nuanced approach to incorporating them.

Writing on Emerson's "pragmatism," and in particular, how Emerson would define "genius," Stanley Cavell writes that for Emerson "genius is, as for Plato, something each person has, not something certain people are" (74). Remarking on Emerson's claim in "Self-Reliance" that "in every work of genius we recognize our own rejected thoughts [which] come back to us with a certain alienated majesty," Cavell argues that such an approach "requires what Emerson calls 'experimenting,' something Thoreau calls 'trying' people" (74). Cavell goes on to pose the following questions:

> Does what you might call science, or its philosophy, have an understanding of this use of experimentation, experimentation as provocation? Is this use less important than the understanding science requires? (74)

By focusing on this quote of Emerson's and asking these questions of it, Cavell touches upon two very rich insights. First, the idea of "experimentation as provocation" seems central to Emerson's approaches to writing as he "tries" people or "ideas" by building upon borrowed claims from other writers or thinkers in order to test them and provoke further interrogation and thought, while reserving the right to reject or dismiss such thoughts at a later date. At the same time, his ability to see "genius" in other people's writing reflected in thoughts that he himself had "rejected" demonstrates an openness to reinvestigation or rethinking of old ideas, a willingness

not only to provoke others through his writing, but to be provoked by the writing of others. Emerson and Thoreau were both well aware that, to seek truth, practitioners of science might privilege more narrowly defined empirical evidence as opposed to experimentation limited merely to a linguistic or literary realm. Yet Emerson and Thoreau may not be in agreement that an understanding that is achieved through literary experimentation is necessarily "less important" than what "science requires." Not only could Emerson's play with words play upon existing scientific discovery, but it could also inform future scientific discovery.

Emerson's appreciation for play might help to reveal his playful and pragmatic attitudes to his own writing, his ability and willingness to play with, try out, and try on inherited concepts by posing generalizations about them, only to contradict himself in short order. Far from shying away from a habit of playing with words and ideas, Emerson vehemently defends this practice and advises others to follow it, telling readers or auditors of his essay "Self-Reliance," for example, to "speak what you think to-day in words as hard as cannon-balls, and to-morrow speak what tomorrow thinks in hard words again, though it contradict everything you said to-day" (120). Emerson's willingness to play with language may remind us of another sense of the word "play": flexibility, or lack of tautness. While one who dutifully followed Emerson's advice might be viewed as hard-headed or inflexible to a given audience on a given day, thus risking an impression of appearing stern or lacking in playfulness, one's willingness to contradict oneself just as vigorously the next day might reveal the benefits of play as an intellectual endeavor. According to this line of thinking, one could give the impression of utter rigidity of spine and total implacability of

philosophical position, while still retaining the freedom to free oneself from the rigidity of those positions the very next day (or even the very next moment).

Taking Emerson's lessons from "Self-Reliance" into consideration, we might conclude that he would have us think that when one is faced with new avenues of thought, one should not remain static but should rather mirror the dynamism of nature, embracing flexibility and play. This is a view of nature, incidentally, that runs counter to a Newtonian or Lockean model which would tend to see the world as conforming to certain immutable laws. It is a view that is open to change, open to lack of conformity, open to nature's sometimes fickle ways. Momentary hard-headedness is not, however, the problem that primarily bothers Emerson; rather, it is consistent hardheadedness, an inability to move, change, and allow oneself to be malleable in the face of emerging discoveries, that poses the biggest threat to intellectual vitality. For Emerson, it is stasis and consistency, an unwillingness to move or be moved, that leads to intellectual complacency, stupor, and idleness. Play is distinguished from idleness, and may even be understood as antithetical to it.

Like a game of dress-up in which we might try on or try out different costumes and assimilate ourselves to the characters and attitudes that such costumes would represent, a willingness to try on and try out new ideas in language likewise might help us to determine what ideas work for us or seem wise or sensible at any given moment. This movement is evident in Emerson's thinking, for example, when he offers the following argument in "Natural History of the Intellect":

No wonder the children love masks and costumes, and play horse, play soldier, play school, play bear, and delight in theatricals. The children have only the instinct of the universe, in which becoming something else is the perpetual game of nature, and death the penalty of standing still. 'Tis not less in thought. I cannot conceive any good in a thought which confines and stagnates. (58)

Emerson's strong claims in "Self-Reliance" (and elsewhere) about ridding oneself of any perceived need for consistency, may offer compelling evidence of an apt analogy between the benefits of child's play and that of playfulness or flexibility in thought.

Consider another definition of play offered in the OED: "to move about swiftly, with a lively, irregular, or capricious motion; to spring, fly, or dart to and fro; to gambol, frisk; to flit [or] flutter." With this definition in mind, we may see how Emerson's playful attitudes toward language also manifest themselves as he moves energetically between different ideas at a rapid pace, darting from here to there, like a fast moving bird or insect. Thinking in these terms, we might begin to see the importance of play as a component of Emerson's literary aesthetics, and understand how playfulness is characteristic of Emerson's literary output, and even his writing style.

But play may not only be at the heart of artistic endeavors such as literature; it is also at the heart of science, a subject in which Emerson took great interest. An overemphasis on the importance of data to scientific "work" might distract us from the simple fact that such data are the results of experimentation, or, to put it another way,

"play." Often we make scientific discoveries through trial and error, by seeing what works and doesn't work in any given situation, and then making conclusions and predicting future outcomes by relating current experience to past experience. Other times we may stumble upon scientific discoveries by experimenting and bringing about accidental outcomes, as was the case for Danish physicist Hans Christian Oersted.

But play is certainly not all fun and games, and is not necessarily to be trifled with. Sometimes play in the name of pursuit of knowledge can lead to destruction, even self-destruction. Some early pioneers in 18th century electrical theory found out this lesson the hard way. It is easy, as argued in the previous chapter, to romanticize Benjamin Franklin, whose "play," in the form of his famous kite experiment, demonstrated his ability to channel electrical energy and thus show not only that lightning was composed of the same electricity generated artificially in the laboratory, but also that humankind could control lightning and protect themselves from it, thus leading to the revolutionary invention of the lightning-rod. Yet we are wise to remember that in building up Franklin as a kind of Prometheus figure, we may easily forget that this was the same Franklin—an imperfect, mortal man—who, as we have already discussed, nearly killed himself by electrocution in his attempt to cook a turkey with a Leyden jar. We might forget too that Franklin's experiment was just one of many dangerous electrical experiments performed around the globe, sometimes with catastrophic consequences, as evidenced by the death of Richmann, just to name one example. While "playing with fire" may be a tired expression, we may nonetheless concede that trial and error can be a dangerous practice, as any young

would-be scientist who sticks a conductive metal object into an electrical outlet would know. Safely said, while play may be a creative force, it can also be destructive.

While play is creative, it can also lead to untruths. In the course of imagining the various potentialities of experiences we've had or concepts we have inherited, we may try on and try out ideas that are fallacious, sometimes with problematic consequences. For every established scientific theory, there have been countless false conclusions or pseudoscientific theories that have emerged. This is certainly the case for the sciences of electricity and magnetism, for which related pseudoscience still persists to this day. Mesmerism serves as a powerful example of how discovery of certain scientific truths might inspire play that would lead to erroneous conclusions, as speculators imagine potentialities which may bear little or no resemblance to reality. Yet the bodily metaphors of mesmerism might nonetheless prove to be seductive, even if mesmerism itself might be rejected or treated with skepticism as a legitimate medical cure or practice by the person who might employ such metaphors.

Given the fact that Emerson was compelled to read extensively on the leading topics of the day, and considering the revolutionary nature of recent discoveries in the fields of electricity and magnetism, it should come as no surprise that Emerson deploys metaphors of electromagnetism in writing. The groundbreaking discoveries of these decades in which Emerson was a young man would have a profound impact on the lives and thoughts of Emerson and his contemporaries. While the obvious and profound influence of figures such as Coleridge, Goethe, and others associated with the Transatlantic philosophical and literary movement that became known as Romanticism undeniably left a mark on Emerson's formulation of his own brand of

transcendentalism, we are yet left wondering if he unquestioningly follows their lead, in terms of accepting their ideas as scientific fact.

Part of the problem in distinguishing differences between mid-nineteenth century literary metaphors and sincere scientific hypotheses of that era occurs because these categories could be so easily blurred. In fact, from a literary standpoint, it might be argued that the poet who possessed a powerful enough intellect and imagination might through his poetic performance render the object of his imagination somehow real. In other words, the adept poet would through metaphor and vivid imagery construct ideas or objects so seemingly real that they would appear indeed real, or at least real in the imagination of the reader: embodied, or at the very least virtually embodied, in material form. This is expressed for example by the Scottish essayist Thomas Carlyle, when he writes the following in praise of Goethe's poetic genius:

> Two circumstances, meanwhile, we have remarked, which to us throw light on the nature of [Goethe's] original faculty for Poetry, and go far to convince us of the Mastery he has attained in that art : [...] The first is, his singularly emblematic intellect; his perpetual never-failing tendency to transform into shape, into life, the opinion, the feeling that may dwell in him; which, in its widest sense, we reckon to be essentially the grand problem of the Poet. We do not mean mere metaphor and rhetorical trope: these are but the exterior concern, often but the scaffolding of the edifice, which is to be built up (within our thoughts) by means of them...Everything has form, everything has

visual existence ; the poet's imagination *bodies forth* the forms of things unseen, his pen turns them to shape. (211-2)

As Carlyle was a close friend of Emerson, as well as a very influential figure in Emerson's life and work, we may wonder if Emerson's view of metaphor and the poetic imagination might resemble that of Carlyle. If metaphors are truly only the "scaffolding of the edifice," could that mean that the poet of great intellect and genius could in fact through adept versification transform an aggregate of metaphors into concrete, material reality? Can words actually take shape, or bring about shape? Can one "body forth" "forms of things unseen," solely through the power of the imagination? If so, could the poet who employs electromagnetic metaphors in relation to the body actually "body forth" an electromagnetic body? It is not clear that such questions would be merely rhetorical in nature.

Given this difficulty in distinguishing between metaphor and scientific hypothesis, it may be difficult to determine the extent to which Emerson truly believed that a great poet or orator could manipulate electromagnetic energies through performance. Emerson undoubtedly had an avid interest in electromagnetic science, expressed for example in his interest in the research and experimentation of Michael Faraday, and in particular, Faraday's discoveries regarding electromagnetic induction.⁷ However, if we remember that Emerson's primary role was that of an essayist, and not

⁷ Eric Wilson is among a number of recent scholars who have commented on the influence of Faraday on Emerson's thinking and work, noting how Faraday's 1831 discovery of electromagnetic induction influenced Emerson's later thinking, an influence expressed for example in Emerson's 1854 essay on Faraday in which he writes that "when we should arrive at the monads or primordial elements, the supposed little cubes or prisms of which all matter was built up, we should not find cubes, or prisms, or atoms at all, but spherules of force."

that of a scientist, perhaps Emerson's deployment of electromagnetic tropes in his essays is not necessarily evidence of his faithful subscription to inherited scientific theories, but rather serves as evidence of his playing with such ideas and trying them on. Remembering the etymology of the word essay and its derivation from the French verb *essayer*, or "to try," we might be well-advised to remember that essays are exactly that: tries. In this regard, Emerson is not necessarily interested in nailing to the wall certain unshakable, immutable truths, but rather he would pursue active engagement in the free play and interplay of ideas. Through such discursive play, he may unearth new possibilities by unhinging from its moorings what might otherwise be considered common sense or established fact.

Such nuance appears to be lost to Eric Wilson in his study of Emerson's employment of electromagnetic tropes. Wilson would have us believe that Emerson actually thought that simply by making references to electromagnetism in his work, he would somehow literally electrify his own writing and thereby electrify and excite his audiences. Wilson argues, for example, that "an electric universe called for an electric style," and that consequently, Emerson, who, "no doubt with Faraday in mind," turned to language that would be "electric, capable of shocking and attracting readers, of overwhelming them with force, of inspiring sublime vision" (13). But what exactly does this mean? What exactly is "electric language" or "electric style"? Surely, like electricity, language can be used to shock oneself or others, but is there really such a thing as language that is itself electric? And even if such a thing as "electromagnetic language" existed, couldn't it repel as well as attract? Couldn't one resist its "overwhelming force?" And is this really Emerson's modus operandi, to "overwhelm" his readers and auditors by "force," in a militaristic linguistic equivalent of what we now call "shock and awe?"

Wilson puts it this way: "[Emerson] harvested real lightning in his tropes, deployed to shock his age into gods on earth" (14). But such a reading fails to distinguish between what is in fact "real" and what is not. It goes without saying that Emerson does not harvest "real lightning" in his language, and, moreover, it is hard to tell exactly what that would mean in practice. Yet Emerson nonetheless playfully projects a model of the poet, writer, and orator as a kind of "lightning-rod" that can both conduct the energy of the universe without injury, and then pass that energy to others in the form of language, and, especially, verse. It is an attractive and powerful image when used as a literary device, but not necessarily a scenario that Emerson believed could be replicated or reproduced in actual, material, physical practice.

While Wilson elsewhere offers useful insight into the ways that the emerging science of electromagnetism informed Emerson's thought, it is less clear that Wilson is correct to infer that the goal of Emerson's writing or oratory was to electrically shock his audiences into submission to his will. Are we to think of Emerson's language as a sort of taser—or, from a nineteenth century perspective, a Leyden jar—designed for the purposes of shocking—and awing—the crowd? Surely Emerson did make analogies between magnetism and persuasive leaders and orators, but he did not think this was necessarily good. To attribute the characteristics of Emerson's prose style wholly to a single source of inspiration, as Wilson does with electromagnetism, seems a hasty generalization. It would likewise be misguided to limit the potentiality of his language to one defining metaphor. And, given Emerson's predilection for

contradictions and his repeated calls to have his listeners and readers think for themselves, independent of the lessons taught by their appointed superiors, we might ask the following question: can we trust his cannonball-like proclamations as hard, concrete truths, and, furthermore, would he want his listeners to do so? An approach that would claim that Emerson's invocation of the sublime is intended to force submission to his presumably superior will fails to acknowledge fully the playfulness of Emerson's philosophy, as well as his language.

To support his claim that Emerson's words were "electric," and, moreover, intended to shock his audiences into submission, Wilson offers commentary on a number of passages from Emerson's work in which he compares effective writing or speaking with elements of electromagnetism, or, more precisely, the effects of electromagnetism. For example, Wilson writes that "Emerson could claim in 1838 that good oration is like magnetism, electricity" (109). He goes on to assert that at this same time Emerson "began to associate powerful spoken words with electricity, a connection that he would consistently make" (109). According to Wilson, this understanding of the presence of underlying electricity that charges the powerful spoken word soon came to be used by Emerson in application to the written word. Wilson points to Emerson's observation that the written text "should become a new & permanent substance added to the world," charged by "chemical affinity" (109). Later in this same paragraph, Wilson observes that Emerson moreover believed that "eloquence, written or spoken, vitalizes its audience with electricity," as it, in Emerson's words, "thrills and agitate[s] mankind" (109).

Yet Emerson's supposedly unequivocal giddiness at the thought of powerful orators or writers inherently delivering electricity, magnetism, or electromagnetism through the form of the spoken or written word is called into question when we consider numerous contradictory statements made by Emerson on this point. Consider Emerson's assertions in his essay "Demonology," for example, where he writes that "the best are never demoniacal or magnetic; leave this limbo to the Prince of the power of the air" (22). Far from applauding the supposed "magnetism" of leaders and orators, Emerson writes disparagingly of pseudoscientific "animal magnetism" and Mesmerism in this essay, as well as those who would claim to practice it or use it to gain advantage over others. Clearly unimpressed by practitioners of animal magnetism, Emerson frankly puts it this way: "these adepts have mistaken flatulency for inspiration" (26). Calling animal magnetism a "black art," on par with "the divination of contingent events, and the alleged second sight of the pseudospiritualists," and practiced by "dilletanti," Emerson's work in "Demonology" leaves no question that at least he adopts a strongly condescending attitude to animal magnetism as a legitimate practice and belief. But, if Emerson is so dismissive of "animal magnetism," then how are we to read his other references to electricity, magnetism, and electromagnetism, as they appear in other contexts, as somehow rooted in "legitimate" science? In other words, when he makes use of terms and phrases borrowed from these fields, how do we know what to take seriously as a statement of fact or belief, and what to consider as convenient borrowings from quackery? In essence, where do we draw the line between legitimate science and pseudoscience, and more importantly, where does Emerson? Clearly, restoring such

omitted rejections of "animal magnetism" into a conversation on Emerson's use of electricity and magnetism in his writing is important to consider, as it offers a different narrative than that offered by Wilson.

We might take a similar approach to other scholarship that has offered extensive commentary on the link between Emerson and both the science and pseudoscience associated with electricity and magnetism. In the absence of acknowledging and sorting out Emerson's contradictions on the matter, a default conclusion might be that he somehow deploys "real" electricity and magnetism in his language, which can also be seen and felt through formal analysis of his "electric words" and "electric style." We can see this movement, for example, in the work of Ann Rutherford Carter, whose dissertation on the subject serves as an important precursor to this current study. Without blinking, Carter observes for example that for Emerson, "through a natural extension of this transfer of energy from poet to poem, the reader also receives an electrical charge" (68). While Carter is correct to identify this underlying current that exists in Emerson's thinking when he imagines a model for the exchange between nature, the poet/writer/speaker, and his or her audience, she fails to acknowledge the fallacy of her claim: the reader does not receive any actual electrical charge, nor, I would add, is this what Emerson would have us believe. While we have probably all at least at one time in our lives felt a tingle in our legs or spines upon hearing the words and intonations of a powerful orator, just as MSNBC commentator Chris Matthews claimed upon hearing Barack Obama speak, it is not *actual* electricity that is transmitted from the speaker to the auditor, even if the words that are heard inspire neural activity that approximates this phenomenon. In fact, as

Emerson's claims in "Demonology" reveal, Emerson might view such pseudoscientific, "pseudo-spiritualist," or "semi-medical" thinking as a form of black magic. Indeed, he might consider it part of the realm of "demonology" which he describes. Yet this doesn't prevent Emerson from leaning upon such imagery in his writing, by imagining such a fantastical transaction occurring and employing it as a vivid trope to illustrate his claims. In essence, it doesn't stop him from playing with this imagery and trying it out, in the days before ideas of a "magnetic" speaker had become tired and clichéd, as they are today. Through this play, he simultaneously tests out the scientificity of these ideas without necessarily lending them credence as scientific fact. Through his vivid and suggestive imagery, we may imagine fiery electrical energy leaping from the mouth of the orator or the pen of the poet and streaming directly to our eyes, ears, nerves, and brains.

Yet some Emerson scholarship would employ a formalistic approach to identify the moments in his writing where electrical and magnetic energy is somehow transmitted and transferred, as if we could alchemically recreate Emerson's linguistic experiments through language and create proverbial sparks of our own. Eric Wilson does this, for example, when he attempts to demonstrate the electricity and sublimity produced by Emerson's choices of words and sounds, as if Emerson had read up on twentieth century New Criticism during his youth at Harvard. In this regard, Wilson's approach to Emerson, while fascinating in its creativity, is strikingly ahistorical.

In one particular section of Wilson's study of the influence of electromagnetism on Emerson's writing style, he argues that Emerson's use of "s" and "i" sounds in a particular passage underscores the sublime impact of his language as it

recreates sounds associated with electrical phenomena, as well as the fire that may ensue (presumably after a lightning strike, we might imagine?). This passage of Emerson's from "Nature" serves as the subject of Wilson's close reading:

> The moment our discourse rises above the ground line of familiar facts, and is inflamed with passion or exalted by thought, it clothes itself in images. A man conversing in earnest, if he watch his intellectual processes, will find that always a material image, more or less luminous, arises in his mind, contemporaneous with every thought, which furnishes the vestment of the thought. Hence, good writing and brilliant discourse are perpetual allegories. This imagery is spontaneous. It is the blending of experience with the present action of the mind. It is proper creation. It is the working of the Original Cause through the instruments he has already made.

According to Wilson's reading of the passage, "'s' sounds, prominent in 'rises', likewise pervade the passage...caus[ing] the passage to hiss with the smoke of the flames as the inflamed 'i's' rise'' (122). Presumably, the sizzling "s" and "z" sounds, in concert with the "inflamed 'i's," recreate the sounds of electricity, and more importantly, its consequences (i.e. fire), all of which for Wilson represents the sublime. What Wilson fails to acknowledge as he is carried away by the spiraling logic of his close reading is that there is no explicit mention of electricity in this

passage, nor in the entire essay from which it was taken⁸. Still, if we concede that the passage alludes to electrical force or at least attempts to mimic its processes in some way, we must also stop to remember that electricity itself is soundless: the cracks and sizzles we might hear in the presence of a spark or bolt of lightning are simply effects of its energy as it reacts with air and matter. Were Emerson recreating the sounds of electricity, he would be doing so with a certain degree of ignorance regarding the science of electricity. Moreover, while Wilson would have us believe that Emerson earnestly understands "real" electricity as working via a conduit between nature, the writer, and an audience, he misses this key component of Emerson's thought as expressed in this very passage: "discourse….[that becomes] inflamed with passion or exalted by thought….clothes itself in images." In other words, any suggestion of electricity or fire may be viewed as just that: imagery, clothing or vestments that one might try on or try out for its effects. Emerson plays with electrical fire in more ways than one, if we follow Wilson's argument to its logical conclusions.

Despite his disavowal of animal magnetism and its trappings in "Demonology," Emerson is not afraid to use elements of this pseudoscientific thought as a kind of clothing or vestment for the ideas he wishes to express. For example, we may find elements of it when he refers to the "electric touch" of English ideas in "Ability," or, as we shall see later in this chapter, his repeated proposition that some human bodies are more conductive than others. We must wonder to what extent Emerson was moved by his friend Margaret Fuller's assertion that a woman has a "superior susceptibility to magnetic or electric influence" (74). The sense of being "inflamed with passion" also, not coincidentally, ironically strikes a chord with

⁸ The excerpt is extracted from Chapter 4 of Emerson's essay "Nature."

notions of Mesmerism and animal magnetism, in that such a condition could also be viewed as an illness and not necessarily a positive trait. Fuller, a chronic sufferer of headaches and other physical ailments, and a woman who generally subscribed to notions of animal magnetism after finding relief from self-ascribed "physicians" who employed its methods, acknowledged this pseudoscience as potentially true. We may wonder to what extent she is self-referential when she argues in Woman in the *Nineteenth Century* that "women of genius...are likely to be enslaved by an impassioned sensibility" (67), and observing that such women are "overladen with electricity" (67). According to such pseudoscientific thinking, an overabundance of electrical fluid in certain areas of the body, particularly in the head region, could lead to a state of "phrenzy," or inflammation of the brain, which could only be "cured" by a trained Mesmerist who would pass hands over the body and restore the balance of electrical energy. So when is an abundance of enthusiasm or passion, dressed in the clothing of electromagnetic conductivity, too much? When is an overabundance of electrical energy understood as a trait of greatness or genius, and when is such abundance dangerous, even to the point of fire in the form of spontaneous combustion, as is so vividly and memorably illustrated in Charles Brockden Brown's novel Wieland?

Emerson never offers a clear answer on this point, nor does he make it clear as to what extent he finds some measure of truth in this sort of thinking. Rather, while in one breath he damns animal magnetism as a "black art," in another he describes it as an "exampl[e] of Reason's momentary grasp of the sceptre," as he does in "Nature." Given such contradictions, we may begin to wonder if Emerson distances

himself from animal magnetism when it is convenient to do so, preferring to illustrate his ideas with examples taken from more accepted and acceptable scientific theories regarding electromagnetism and galvanism. Yet his clarity and consistency on the subject is compromised when he blurs the distinction between science and pseudoscience at other moments.

After closer inspection, then, we may find Emerson's language not so easily tamed, and, in fact, we may find it too playful to be bound, limited, or reduced by a literalist, New Critical approach such as that employed by Wilson. There is no question, as Wilson argues, that Emerson was keenly interested in the potentiality of electromagnetism, and Wilson persuasively offers evidence to that effect. However, it was not so much that electromagnetism influenced Emerson's manipulations of sounds in his prose, but rather that elements of electromagnetic science and associated pseudoscience sparked his imagination and offered him a new vocabulary and a new toolbox of images from which to draw. Such vocabulary and imagery might help him reshape or reframe his expressions of understanding of the inner workings of life, nature, and corporeality, as he simultaneously grappled with ways to represent unification between supposedly disparate spheres of art, nature, and science. In short, Emerson's playful experiments with science, pseudoscience, and language allowed him room for flexibility of thought—a relief from tautness and stasis— that might lead to creative discovery.

Nowhere is Emerson's penchant for discursive play more evident than when we reconsider his appropriations and revisions of Thoreau's image of the spine as a lightning-rod, by which we began this chapter. While it is surely impossible to reconstruct fully the conversation that transpired between Emerson and Thoreau that prompted the former's journal entry in the summer of 1852^9 , it is possible nonetheless to imagine the general thrust and context of the conversation-and pinpoint its origins. We may do this first by exploring Thoreau's articulation of his thoughts on the matter in his own journal entry, written mere days before that of Emerson.¹⁰ Suddenly shifting from vivid observations on the pleasing vista from atop Bear Hill, where he could just make out a vague glimpse of Mt. Monadnock on the horizon, Thoreau launches into an extended description of the remains of an ash-tree that had fallen victim to a lightning strike in the previous week. The damaging effects of this phenomenon are extensive and manifold: not only is the tree scorched from top to bottom, but a good portion of it has exploded into segments, and its bark has been completely stripped. He notes that the impact of the lightning bolt was of such strong force that it extended not only to the roots of the tree, but also to the cellar of a nearby house, some thirty feet away, "scorching the tin milk-pans, and throwing dirt into the milk" (253). Presumably, it is this particular lightning strike—and, particularly, its effects and consequences—that inspired Thoreau to bring up the topic with Emerson and discuss its significance. Moreover, it is likely that it was this specific instance that likewise inspired Emerson's journal entry.

⁹ See Appendix 1 to see Thoreau's June 27, 1852 journal entry in its entirety.

¹⁰ A conversation between the two men on the subject of lightning-rods must have occurred sometime near the end of June or the beginning of July 1852, as Thoreau's journal entry on the topic is dated June 27th of that year, and by July 6th, Emerson referred to the conversation as happening just "the other evening."

If Thoreau's narrative of the lightning strike were merely descriptive, and lacking in didactic import, it is possible that it may not have had much staying power in Emerson's mind. But Thoreau indeed attempts to draw a lesson from what he had witnessed, a lesson whose significance he may have communicated to his friend just days later. We may see Thoreau's shift from descriptive nature writing to moralizing when he moves to the following simple question: "for what purpose?" (254). Thoreau writes that the lightning strike was caused by "a Titanic force, some of that force which made and can unmake the world," in a turn of phrase that almost anticipates the title of literary critic Elaine Scarry's book, published over a century later. Thoreau imagines his identification with the stripped and splintered tree, which might have been his own body had he been standing in that spot at the time of the strike. This near brush with death is also a near brush with the sublime; the scene of destruction offers evidence of the massive power of nature to rip away, suddenly and violently, the life that it has given.

Such a narrative would be an easy jumping off point to reinscription of a familiar Calvinistic scenario that would infer that the inhabitants of the nearby house were somehow selected by an ancient and divine force for this nearly very violent fate because of their own inherent sinful nature. Such a move would be typical at a time in New England when resistance still existed to the notion of placing a lightning rod on top of a church steeple, as this might be a blasphemous affront to God's will. Thoreau does begin down this well-worn path, but then, surprisingly, goes on to undermine that very formulation. Although he vaguely hints at theological apologetics when he rhetorically asks if the act were "guided by intelligence and

mercy," or, later, when he claims that "science assumes to show why the lightning strikes a tree, but it does not show us the moral why any better than our instincts," he stops shy of pursuing further what might be a prime jumping off point for defense of religious beliefs. Instead, he argues that "it is our consciousness of sin probably which suggests the idea of vengeance, and to a righteous man it would be merely sublime without being awful" (255). Thoreau turns his attention not to the nature of God, but rather the nature of the self. The lightning strike offers a moment for introspection, as well as a study of how a close encounter with the sublime can be differently perceived depending on one's own understanding not only of God but of oneself. He refutes the notion that the lightning-strike is proof of the act of a vengeful God seeking retribution against sinners, but rather infers that it is the belief in one's own sin as well as in a vengeful God that would bring an observer to view the phenomenon in this way. In other words, from Thoreau's point of view, the phenomenon is only understood as a divine act if the observer believes in such narrative: the secular witness would simply be left awestruck, rather than ascribe the act some religious significance. Thoreau stops short of calling the lightning strike an act of God, instead choosing to use it as an example of how an encounter with the presence of sublime force can be perceived differently depending on one's own self-perception and belief system.

If the witness of such a destructive act of nature firmly believes in his or her goodness, and is by all accounts good, then, by Thoreau's logic, it would seem that whether or not he or she believes in divine Providence, he or she would not see the act as that perpetrated by a God bent on revenge, as there would be nothing for that God to avenge. Belief in oneself and one's own inherent goodness—a kind of inner

divinity—would serve as a shield from viewing the lightning strike as the act of a vengeful God. Adoption of such an attitude would allow the observer to enjoy the phenomenon for its natural sublimity, rather than understand it as a possible reincarnation of a narrative of Sodom.

Thoreau then shifts from addressing the problem of perception to the question of protection, as he imagines a pathway to feeling secure and at home in nature. How can one feel safe, secure, and in the right place at the right time, given random acts of destruction that occur? Is it possible for mind to overcome matter? If we strongly believe we are safe, are we indeed safe in the midst of destruction? Does belief in oneself and one's own divinity work as a talisman to ward off danger or render protective effects? Such questions would prove to be rich and fertile territory for thought, as Emerson—and later, Melville—would discover.

Such a line of questioning undoubtedly yields key lessons for Thoreau. Rather than only inspiring awestricken fear, the encounter offers an opportunity to envision a way we could feel safe in the embrace of nature which could easily "unmake" us. But what proves more provocative, and, arguably, more influential on Emerson, is Thoreau's next logical move. Changing gears from his brief contemplation of how the lightning strike might be interpreted as having some religious significance, Thoreau quickly turns to discussion of the necessity of lightning-rods:

> This is one of those cases in which a man hesitates to refer his safety to his prudence, as the putting up of a lightning rod. There is no

lightning-rod by which the sinner can avert the avenging Nemesis. Though I should put up a rod, if its utility were satisfactorily demonstrated to me, yet, so mixed are we, I should feel myself safe or in danger quite independently of the senseless rod. There is a degree of faith and righteousness in putting up a rod as well as trusting without one, though the latter, which is the rarer, I feel to be the more effectual rod of the two. (255)

Rather than seeing the near miss of the lightning strike as an impetus to adorn his house with a "protective," decidedly phallic lightning-rod, Thoreau instead maintains precisely the opposite: that he is better off without one, that his own sensibility and manhood is enough to protect himself from harm and he needs not be reliant on the purchase of a "senseless rod." Contrasting his own sensibility with that of the "senseless" rod, Thoreau prefers to have more faith and trust in himself than he does in the rod. If Thoreau believes and trusts in his own safety, then he will indeed be safe, irrespective of whether or not he places a rod atop his house. Extending this idea to others, Thoreau appears to believe that trusting in one's own safety and goodness in the midst of impending calamity would have a sort of placebo effect: "it is the faith with which we take medicine that cures us" (255). Thus, for Thoreau, rather than being struck with fear and terror at the threat of lightning, one should regard lightning "with serenity, as are the most innocent and familiar phenomena" (256). Although "serenity" may not be the first word that might come to mind when one considers the violent aftermath of a lightning strike, and the prospect of having's one body

destroyed in the fashion that the tree was destroyed, that is precisely the attitude that Thoreau suggests that one should adopt. It is as if by feeling an inner, confident tranquility in the presence of nature's awesome destructive power —a feeling of being at home or being in the right place at the right time—one could ward off its potential danger. In other words, adopting the right stance in the face of danger could be just the medicine one needs to protect oneself from that danger.

While it is not clear that Thoreau truly believed that one's confidence alone could protect oneself from danger in a thunderstorm (especially if one stood on a hill atop the oak trees most prone to lightning strikes), he may at the very least resist the notion that one must necessarily always be equipped with protective gear such as lightning-rods, just as he would in *Walden* advocate living simply without the burden of excessive material accoutrements. Taken in the context of his arguments made elsewhere on the need for self-reliance and independence from the materialism of industrialized society, it may be that he believes that a more serene, less fearful attitude toward life and its dangers will indeed result in better overall health, and even an ability to withstand, survive, and defend oneself against threats to one's health. This is exemplified in a key point which was undoubtedly the focus of his later conversation with Emerson:

> There runs through the righteous man's spinal column a rod with burnished points to heaven, which conducts safely away into the earth the flashing wrath of Nemesis so that it merely clarifies the air. This moment the confidence of the righteous man erects a sure conductor

within him; the next, perchance, a timid staple diverts the fluid to his vitals. (256)

Thoreau's imagery draws us away from the "senseless" metal rod, and brings us to imagine a kind of "rod" existing within the human body, within one's very spine. In at least a figurative sense, one *becomes* and *is* a lightning-rod, and it is one's own sense of confidence and righteousness that lends itself to this formation and existence of a protective "rod" within oneself. Therefore, following this logic, if one conducts oneself with propriety and confidence, one might develop the ability to conduct the dangerous electrical "fluid" safely away to the ground without having any harm done to one's body. If one's confidence is reduced to timidity, however, the "rod" may as easily become a "timid staple," "divert[ing] the fluid to [one's] vitals"—in essence, allowing the powerful electricity to overwhelm the organs so that instantaneous death may occur.

Thoreau's formulations may resonate with the development of neuroscience in the nineteenth century. While it was widely understood that the brain was the primary nerve center in the body, it was also increasingly understood by the late nineteenth century that the spine or spinal cord served as a conduit for bodily energies to be transmitted to other parts of the body. In fact, it was understood that the spine itself was central in this process, that, like the brain, it also served as a "nerve center" or contained numerous "nerve centers." Consider, for example, this excerpt from George Dallas Lind's 1882 *Teachers' and Students' Library*, a "compendium of knowledge"

designed to help give rural American schoolteachers the background they needed to teach with authority on a vast number of subjects:

The spinal cord not only originates impressions but is a medium of communication between the distant parts of the body and the brain. Note that it is composed of *gray* and *white* matter: the former may originate impressions (reflex action) and the latter transmit impressions. It is, however, an unsettled question whether the transmission of impressions is always direct, or whether it is by aid of the gray matter of the cord acting as relays, or aids to the nerve force. (190)

If it were already common knowledge by 1882 that the spinal cord was itself capable of both originating and transmitting impressions, then perhaps similar discourse may have been already available to Thoreau some thirty years earlier. If the spine or spinal cord could potentially originate and transmit impressions somehow autonomously from the brain, could the brain somehow train the spinal cord to become stronger or more impervious to those impressions? Could the brain intercede and prevent the spinal transmission of certain impressions (for example, the influx of electrical current from a lightning bolt)? Thoreau addresses these unsettled questions by proposing the idea that if one adopts an attitude that eschews timidity in the face of danger, one might actually prevent the transmission of dangerous current to the body. Could he have had such medical knowledge in mind, or is his attitude representative of the

linguistic constructions and a priori knowledge necessary for physicians to formulate their later theories on neuroscience?

While it may be tempting to consider Thoreau's claims as scientific hypotheses in the making, it is not clear that these constructions are to be understood as delving beyond anything but the figurative realm. For Thoreau, romantic and hyperbolic imagery may trump the material and the practical realities of medical fact. Would he have us believe that he was truly a proponent of a kind of pseudoscientific theory or alternative medicine that would suspend our understanding of the lethal effects of massive electrical force applied to the body? Or is he simply using this example as a convenient trope that illustrates a pathway by which he and others could adopt a more relaxed attitude toward natural phenomena that might otherwise render them fearful? While Thoreau was "correct" about electricity to the extent that the electricity found in a lightning bolt is the same electricity found within the human spinal cord (just as Franklin was right in his guess that the electricity found in a lightning bolt was the same electricity that could be controlled and manipulated in a laboratory setting), Thoreau would have surely been foolhardy to believe that it naturally follows that one who had confidence in one's safety and righteousness had nothing to fear from a lightning bolt.

If Thoreau truly believed that one could become one's own best and safest lightning-rod, then that belief would be challenged by the plentiful accounts of unfortunate souls who, due to no apparent fault of their own, involuntarily became human lightning-rods, victims who succumbed to the powerful forces of nature. Writing in the summer months, Thoreau was writing at a time when the danger of

being killed by a lightning strike was by no means trivial: it was the peak time of danger. In his 1858 treatise on electricity, Swiss physicist Auguste de La Rive noted for example that "in the short period from 1835 to 1852, [lightning] has killed not less than *thirteen hundred and eight persons* in France" (152), the majority of those deaths occurring within the summer months, the very time in which Thoreau was writing. This number did not take into consideration those killed by fire or other causes indirectly stemming from lightning strikes. To argue that all of these victims of direct lightning strikes merely had weak constitutions, brought on by lack in self-confidence, would be a truly unwinnable argument. To consider the chances of getting fatally struck by lightning in the United States, we may turn to De la Rive's estimate that the number of deaths due to direct lightning strikes in this period exceeded fifty per year. While one might trivialize this number and diminish its significance by comparing it with other far more common potential causes of fatalities, it is impossible to trivialize the stories of each human life lost, which might well have been prevented, had better precautions been taken.

Consider, for example, the story of Francis Nye, Jr., killed in the cellar of his paint shop on Martha's Vineyard in late July of 1851. Just as occurred with the lightning strike that Thoreau described, the electricity from the lightning bolt in this instance descended into the ground and into the nearby cellar. The fatal difference between this case and that described by Thoreau was that the cellar was at the time occupied by a person, namely, Mr. Nye. According to the account given in the *Vineyard Gazette*:

The fluid entered the building from the roof, striking the chimney, which it shattered, passed below, breaking out the windows, and rendering the shop a complete wreck. A portion of the fluid descended to the cellar, instantly depriving Mr. Nye of life. It struck him on the head and shoulder, and passed off by the hip and feet. The skin was peeled off and the flesh badly burned. Mr. N's shoe was cut directly in two, lengthwise. Mr. Nye was a business man of excellent character, and his loss is greatly to be deplored. He leaves a wife and one child.

Would Thoreau have us believe that had Mr. Nye held a different attitude, a certain righteousness or confidence, then he might not have met such a tragic end? Would Thoreau have really believed that a lightning-rod would not have been helpful in this case? Was he really an opponent of this technology, or was he merely seeking a way to live comfortably and in harmony with the universe, without the clutter of unnecessary technology and the burden of unnecessary fears of natural phenomena that may be out of one's effective control?

However we might imagine possible answers to these questions for ourselves, we can be sure that Thoreau's ideas must have taken strong hold over the imagination of his friend and mentor Emerson. We can know this with a full measure of certainty, as their brief conversation inspired Emerson not only to take note of it in this 1852 journal, but also to include it in at least two separate essays, written and revised over a period of many years: first, written in the form that introduces this chapter, in an essay called "Aristocracy," and secondly, in a different form in a later essay entitled

"Worship," which appeared in his 1860 collection *Conduct of Life*. As we have already seen in this chapter, electricity and electromagnetism had long been an interest of Emerson's, as noted by Emerson scholar Eric Wilson, among others. As we shall also see, though, it may be worthwhile to consider the possibility that this brief utterance of Thoreau's sparked a sudden, illuminating connection to his earlier trains of thought, enough so to inspire revision of his earlier writings. By playing upon Thoreau's idea and imagining its potential and its possibilities, Emerson arrives at an epiphany that strikes a powerful chord with his own earlier observations on the significance of electricity and electromagnetism.

To underscore the lasting impact of Thoreau's "lightning-rod man" imagery on Emerson's thinking, we may begin by examining its re-emergence, albeit significantly revised, in "Worship." Thoreau's language has been significantly altered, although the general sentiment remains the same: "the lightning-rod that disarms the cloud of its threat is [every man's] body in its duty" (123). Yet in this version of Thoreau's original idea, we find that the subject has shifted from the specific body of Thoreau as the locus of the protective lightning-rod which will supposedly ensure safety and prevent bodily harm, to a more generalized version, where the "body" in fact represents the body of "every man"— presumably, every human body, or, more precisely, the ideal body. What began as Thoreau's initial musings and meditations on the necessity of installing a lightning-rod on one's home becomes, in Emerson's hands, seeds that might blossom into an aphorism regarding the human condition.

So why does Emerson appropriate Thoreau's idea and then transform it by changing its subject from a specific human body (i.e. Thoreau's) to a broader generalization about "every man," or, to put it another way, an ideal to which humankind may aspire? Tellingly, in his own journal entry, Emerson follows a similar logical progression to that made by Thoreau. Like Thoreau, Emerson begins with specific observations about nature, and then from these observations he develops broader philosophical generalizations, removed from his immediate geographic context. As was the case for Thoreau, his reference to a lightning-rod spine more closely resembles an opaque parable than it does a prescription for specific action. Taken too literally, Emerson's words might lead one to consider putting oneself in harm's way, as if it were actually one's "duty" to conduct and thereby "disarm" the cloud of its "threat." Yet it would be implausible to think that Emerson would think that one should actually strip off one's clothing in the midst of a thunderstorm, stand at the highest possible point in the landscape, and, in so doing, attempt to rob the clouds of their deadly electric force. There is little evidence in Emerson's essay that might warrant such an absurd reading. Taken figuratively— and placed in the context of Emerson's overall philosophy—Emerson's words might lead one to the image of a vital and self-reliant individual who is able to overcome fear and boldly take risks, an individual who is able to channel the energies of nature toward doing what is good and right in his or her own mind, without necessarily relying upon— or being limited by what he or she is told to do or think by others.

While the idea of a human body used beneficially as a lightning-rod may make little sense to us when understood in literal terms, we may understand why Emerson
may have been attracted by the image as a powerful illustration of his own philosophy of life. Long before comic book heroes like Captain Marvel could serve as a model for such thinking, it offers him the image of a superhuman hero who not only could withstand intense natural threats but who might also embody not only strength and goodness but the ability to control and convey natural forces in a way that could only rival the gods. Emerson is attracted by the image of a kind of Promethean, superhuman, divine quality to which one might aspire, or even foster and nurture within oneself. He admires the imagery of a magnetic, conductive superhuman figure for its poetic potential, even if he is not necessarily a believer in such a being as scientific fact. Dabbling in science, then, Emerson plays with electromagnetic language and terminology as a springboard to reimagine and reconstruct the body's relationship to natural forces, not only for himself but also for his readers, for whom discourse on electricity and electromagnetism may appear novel and exciting. In short, it is not so much that he thinks that one should actually conduct lightning bolts to one's body, nor is it that he believes that his style of writing would in any way convey actual electricity to his readers, as Eric Wilson would imply. Rather, he is fascinated with the literary potentiality of electromagnetic imagery, and in so doing also reflects a similar fascination shared by a larger reading and listening audience.

Emerson leans on Thoreau's vision of the body as a lightning rod as a hyperbolic trope that might illuminate his views on the best course of human conduct. Echoing and building upon Thoreau's assertion that "it is the faith with which we take medicine that cures us," Emerson observes in "Worship" that if one has a "high aim," it is "curative," and, as such, has a revitalizing effect on "the organs of the body."

Whether or not Emerson truly believes in this as scientific fact is a matter of conjecture, but nonetheless, it offers him a framework by which he might sketch out his vision of a connection between vitality, ambition, and goodness of purpose that might serve as a goal and incentive for anyone who might aspire to greatness. According to this line of thought, in the absence of the intervention from divine Providence, one's strong will and belief in the goodness of one's purpose could serve as one's shield in the face of danger. As Emerson writes, it could for example help a man "run into flame or bullets or pestilence, with duty for his guide." While this formulation may to us resemble a version of the clichéd concept of mind over matter, we must remember that Emerson's return to Thoreau's imagery of a lightning-rod spine nonetheless must have served as a fresh and powerful image at a time when the popularity of animal magnetism ran high. But Emerson's playfulness in choosing an electrical trope to depict this concept might also make us consider the possibility of his playful punning on the word "conduct," which appears in the title of this collection of essays. Suddenly the "conduct of life" may be understood as not only a set of rules regarding how one should behave and carry oneself, but also how one might "conduct" electricity or life force.

Moving from "Worship" for a moment, we may now return once again to the sentence that appears at the outset of this chapter. Emerson's statement appeared in the essay titled "Aristocracy," published for the very first time posthumously in 1883 as part of Emerson's complete works, yet apparently given in the form of a public lecture over a period of many years. Incidentally, this version is not to be confused with another of Emerson's works, also titled "Aristocracy," which appeared as a

chapter in the 1856 collection *English Traits*, differing completely in content and focus as it centered specifically on English history and the development and significance of its feudal system. Despite the late date of its publication, "Aristocracy" was actually derived from a lecture originally read by Emerson in England in 1848. We may be sure that Thoreau's meditations on the body as a lightning-rod must have significant resonance with Emerson, as they were appended, with revisions, to his talk given four years earlier, which apparently he re-worked and revised, yet never published, over the course of the rest of his life.

So why did Emerson feel the need to append Thoreau's speculation on the body as a lightning-rod? Why, specifically, in "Aristocracy?" We might begin to think about this by examining the context in which this revision of Thoreau's work appears. In this essay, Emerson offers criticism of a system that would confer aristocracy on individuals simply based on their heredity. Emerson muses on this topic, for example, in the following way:

> I observe the inextinguishable prejudice men have in favor of a hereditary transmission of qualities. It is in vain to remind them that Nature appears capricious. Some qualities she carefully fixes and transmits, but some, and those the finer, she exhales with the breath of the individual, as too costly to perpetuate. (33)

What Emerson appears to be driving at is that distinctions of class, as they are arranged by humankind, do not necessarily reflect any natural superiority of one group

over another. Simply because one is born into aristocracy does not mean that one possesses refined tastes and sensibilities; in fact, such an individual may be remarkably dull. According to Emerson's thinking, no advantage in money or parentage could alone bring the inferior man the qualities that might render him superior. Emerson unfortunately insists on making all such references masculine, although it is unclear to what extent women may be included, if at all, in his thinking. As such, while Emerson may have been an early proponent of equal rights, he did not believe in the inherent equality of all human beings, nor did he believe that the aristocracy should be abolished. Rather his arguments demonstrate that he believed that aristocracy should not be based on fortunate upbringing, but rather on merit: "the existence of an upper class is not injurious, as long as it is dependent on merit" (38). His call is not for abandonment of the class system, but rather for an aristocracy that deserves to lead precisely because they are good leaders: "men of aim must lead the aimless; men of invention the univentive" (39).

Waxing poetically on exactly what characteristics might describe such "men of aim," Emerson's language soon begins to resemble the Thoreau of the aforementioned journal entries, a Thoreau who had already read his Emerson. We may begin to see Thoreauvian tendencies creeping into Emerson's thinking when he describes these "men of aim" as "men who are charmed by the beautiful Nemesis as well as the dire Nemesis," echoing Thoreau's observation in his journal entry that "there is no lightning-rod by which the sinner can avert the avenging Nemesis." Both writers make allusion not to Christian theology, but rather to Greek mythology. While the name Nemesis, derived from the Greek *némein* or "to give what is due," is today in its

lower case version associated primarily with actions made by a maleficent antagonist and avenger, Emerson and Thoreau's invocation of the name merely implies a neutral force that either rewards or punishes based on whatever merit—or, lack of merit—a given individual might possess. In both Emerson's and Thoreau's arguments, it is clear that a person of above-average character and constitution, who attempts to achieve aims that are both good and right, will be— or, at the very least, ought to be given what is due. What Emerson seeks to uphold and engender is a vision of an ideal, civilized man of heroic proportions, who rises to the forefront of society because he truly deserves that place. The body of such a man must be strong and unassailable, and must channel the energies of nature toward achieving excellence. Emerson puts it this way:

And since the body is the pipe through which we tap all the succors and virtues of the material world, it is certain that a sound body must be at the root of any excellence in manners and actions; a strong and supple frame which yields a stock of strength and spirits for all the needs of the day, and generates the habit of relying on a supply of power for all extraordinary exertions. (43)

This pipe-like man—or, to put it another way, rod-like man—is able to conduct both virtue and power. And not only is such a man exemplified by inventors, such as those who applied concepts of electromagnetism to create the electric telegraph, but also by those who are, in fact, magnetic: "not only the phrenologist but the philosopher may

well say, Let me see his brain, and I will tell you if he shall be poet, king, founder of cities, magnetic..." (44). For Emerson, this right sort of leader is not of "puny constitution" but is "well mixed" (43). Again this echoes Thoreau's language from his journal entry, when he trusts in himself more than his lightning rod, associating his imperviousness to the effects of the threat of a lightning with the notion of being "so mixed." The word "mixed" implies not that the individual is of a superior breeding or genetic "mix," but rather the right combination of abilities, sensibilities, and perceptions.

Emerson chooses to employ the example from his conversation with Thoreau by speaking again of "place." After at length making sure to show that he in no way seeks to defend "gradation in the universe," in other words, that he does not seek to somehow justify the caste or the relative success of the few in contrast with the vast suffering of the many, Emerson writes the following:

> The only relief that I know against the invidiousness of superior position is, that you exert your faculty; for whilst each does that, he excludes hard thoughts from the spectator. All right activity is amiable. I never feel that any man occupies my place, but that the reason why I do not have what I wish, is, that I want the faculty which entitles. All spiritual or real power makes its own place. (47)

For Emerson, it is one's "faculty"—or, to put it as we have before, one's "mix" of abilities, sensibilities, and perceptions—that entitles one to one's "place" in society. It

follows that if one feels somehow displaced or dissatisfied with one's place, one is lacking in the correct "mix." The only remedy to this, if there is one at all, is that one must use one's "faculty" both rightly and to the best of one's ability so that "place" and "power" might naturally follow. But this idea of "place" also brings up another idea that directly relates to the marketing techniques of those who would sell lightning-rods. In order to persuade someone to purchase a lightning-rod, the seller must make a potential buyer fearful and uncomfortable in one's own home—in short, out of place. Lightning strikes those who are truly in the wrong place at the right time: atop a relative high point in the landscape, too near in proximity to a window, or, as was likely the case in the story of Mr. Nye, in close contact with conductive material, with nothing to insulate the body from the surging electrical current. Yet, as Emerson's logic would have us believe, if one feels safe, secure, and comfortable in one's own place, then there is no need for fear, hence, no need for a lightning-rod. Thus goes Emerson's argument when he offers the following logic:

> We pass for what we are, and we prosper or fail by what we are. There are men who may dare much and will be justified in their daring. But it is because they know they are in their place. As long as I am in my place, I am safe. 'The best lightning-rod for your protection is your own spine.' Let a man's social aims be proportioned to his means and power. (47)

It is unlikely that Mr. Nye's feelings of relative security or sense of place would have helped him to avoid certain death. We may ask: wouldn't it make more sense to simply install a lightning-rod? Even more so than was the case with Thoreau, for Emerson it is not so much that he is railing against the sales and distribution of Franklin's lightning-rod, but, rather, that he implies that one should not feel out of place, either at home, in society, or among natural surroundings. Just as a lightningrod salesman might make one feel fearful, insecure, and out of place in order to sell his wares, so too might a person who holds a superior position in society propagates similar feelings of fear and insecurity among those deemed inferior in order to maintain power and control. Yet, for Emerson, those intrepid individuals who dare to feel always "in their place" will not be led to cower. Again, this appears to be more parable than prescription. Emerson is attracted to the symbolic power of Thoreau's image of the magnetic, conductive individual who can act as his or her own best lightning-rod, even if it is doubtful that he would actually believe that one should go without one in reality. Emerson plays with Thoreau's imagery to open up creative possibilities that might suit the purposes of his prose, without necessarily proffering his ideas as earnest scientific hypothesis.

We may see how the idea of literally having a lightning-rod spine—or at the very least, a lightning-rod that is attached to your spine—is laughable to a nineteenth century audience when we find this idea explored for its comic effect in a short article entitled "Lightning-Rod Down the Spine," published in an 1858 edition of *Musical World*:

There is a most singular individual in the Twentieth Ward, whose conduct on certain occasions for the past two months has created no little surprise and amusement. He has always been accounted as a man of strong common sense. Yet he has not ventured into the street for many weeks, during a rainstorm, without a lightning-rod attached to him. It is an iron rod about five feet in length, with a trio of prongs at the top, and so bent that it hangs or sits upon the crown of his hat, where it is fastened, with the upper end rising some ten inches above him; and the rod running down his back outside, being held in place by a band about his waist. The lower end hangs out at an angle of forty degrees, like a monkey's tail, so as to convey the electric fluid some distance should he be struck while walking. On all other subjects of conversation he is sane, but when the lightning-rod subject is touched upon, he discourses seriously on the necessity of such an arrangement when it rains, believing that the air is filled with electricity, whether it is a thunderstorm or not.

It is precisely this kind of preposterous attitude, a sense of fear of nature—and lack of feeling in place or at home in nature, taken to an absurd extreme—that is surely a target of both Thoreau and Emerson's critique of lightning-rods used as a prophylactic measure against danger. It is not the lightning-rod that is the problem. What is problematic—and what would most likely concern the two writers— is the danger of succumbing to undue fear that one cannot save oneself from destruction without the

constant protection of something outside the self, not of the self. Rather than feeling threatened by the fear of feeling out of place, or the insanity that might ensue from such a feeling, it might be preferable to be your own best lightning rod, figuratively speaking. It would be better to feel safe in your own skin, to feel comfortable in your environment, than to succumb to fear and fall prey to those who might capitalize on that fear.

Emerson's playful approaches to scientific and pseudoscientific hypotheses regarding electromagnetism and its potential effects on the human body help us to understand why Thoreau's image was so attractive, as it reopened connections to his prior thinking and writing, and demonstrated the interplay and overlaps between metaphorical and self-ascribed "scientific" discourse. To understand this discursive interplay, we might ask ourselves a question similar to that posed by sociologist Bruno Latour when he writes the following in relation to the numerous metaphors that pervade the work of Louis Pasteur:

> Is it possible to use [philosophical] categories and figures of speech (even if it means reconfiguring them again), not to obscure the scientists' work but to make it both visible and capable of producing results that are independent of it? (133)

With regards to Emerson, I would answer this question with an emphatic yes. In metaphorizing scientific/pseudoscientific discourse on electromagnetism and the body, Emerson not only renders it more "visible" and more easily understood, but also

complicates and develops our understandings of electromagnetic corporeality in ways that might produce new "results," results that could in fact lead to further discovery and insight. When Emerson states in "Self-Reliance," for example, that "the world has been instructed by its kings who have so magnetized the eyes of nations," are we to believe that this statement exemplifies Emerson's belief that kings and national leaders actually magnetize the eyes of their respective peoples, as a mesmerist would supposedly magnetize the bodies of his patient? Or, does this imagery operate as effective, vivid, and dramatic literary device that provides a new conceptual model that might persuade and move his audience to reconsider or reconfigure their understanding of monomaniacal leaders? In this way, Emerson synthesizes art and science, bringing about union between the figurative and the real, by applying inherited scientific theory to poetic expression. Does he in this regard subscribe fully to the notion that electromagnetism might provide the key to a unified theory of life, as Oersted would offer? Or does Emerson's metaphorizing of electromagnetism merely apply pressure to this concept, by playing with it and thereby seeing how far and how well it will carry his ideas before disintegrating into illogic? I would argue that the latter is the more appropriate question to answer affirmatively.

Although science is often not thought of as being informed by metaphor, a study of the "crude and hasty" metaphors used to describe electricity and electromagnetism will reveal that metaphor plays a larger role in scientific thinking than we might suspect. Certainly Benjamin Franklin was aware of this as he coined terminology to describe electricity and its effects, and such a position is not without

support in the scientific community today¹¹. Metaphor is not only something which understanding depends upon, but something that can actually be a catalyst for new understanding. In other words, while it can never be fully "cleansed" from discourse, neither should it be, as metaphorical constructions and linguistic play can lead to new scientific discoveries. Metaphors are powerful tools to convey meanings and explore new ideas.

The power of metaphors can also have damaging and destructive effects, however. Scientists Matthew Chew and Manfred Laubichler observe, for example, that "metaphors introduce a fundamental trade off between the generation of novel insights in science and the possibility of dangerous or even deadly misappropriation," and offer the example of eugenics to illustrate how scientific fact could be dangerously misused or misappropriated. Emerson's suggestion that poetic genius is something possessed by only some rare individuals, individuals who could somehow conduct natural energies and convey them in verse, is not far removed in philosophy from those phrenologists who might argue that the shape of the head of a Caucasian person would predispose them to superior intellect to that of an African or Native American person. By resorting to "crude and hasty" metaphors to offer a model of poetic genius, Emerson takes a significant risk, a risk that could in the wrong hands have very real

¹¹ To consider one example of the support that members of the scientific community have shown for the notion science—and our understanding of science—is informed by metaphor, we can look to a 2003 article in the journal Science, written by Matthew Chew and Manfred Laubichler, both science professors at Arizona State University, who, observing that "metaphors are ubiquitous in science," argue that "simplicity and intuitive appeal are...the main reasons why scientific language has never succeeded in "cleansing" itself from metaphorical "impurities"... Indeed, metaphors appear to be essential to all forms of language and understanding. But if scientific language is by necessity to some extent metaphorical, then interpretation of its content depends on the cultural context that generates the metaphors that are used. (52)

and very dangerous consequences. At the same time, by straddling the figurative, imaginary realm with what we might call for lack of a better term the "real," Emerson is able to vividly illustrate his ideas and at the same time clothe them in vestments that will maximize the effect and potentiality of the ideas he would attempt to express.

It would be misguided to suggest that the playfulness of Emerson's language choices demonstrates that he is merely whimsical, arbitrary, or lacking in seriousness. That said, it is also folly to assume that Emerson always whole-heartedly believed in what he was writing and saying as irrefutable scientific truth. Such belief is questioned by Emerson's firm assertions of his resistance to accepting inherited theory without question, for example when he notes in "Self-Reliance" that "when we have new perception, we shall gladly disburden the memory of its hoarded treasures as old rubbish" (125). So while a reading that takes Emerson strictly at his word might make one think that he actually offers credibility to followers of pseudoscientific ideas such as animal magnetism when he writes of kings "magnetizing" their people, his words elsewhere in the same essay reveal a contradictory view. This lack of consistency is further underscored by Alfred Ferguson in his introduction to volume three of Emerson's collected works, when he notes that Emerson derisively referred to animal magnetism in private as "mumbo-jumbo" (229). In this way, he fully lives up to his creed that one ought to have no fear of contradicting oneself, as he sometimes does so even in the same essay, or the same collection of writings. While in "Demonology" he casts aspersions upon adherents to theories of animal magnetism, in other essays and lectures, he appears to be more open-minded to this pseudoscience. However, in his essay on Plutarch, published in Letters and Biographical Sketches, he praises the fact

that Plutarch's "own cheerfulness and rude health are also magnetic" (235). Given such stark contradictions, we may see that what pseudoscientific theories of animal magnetism had in common with theories more universally accepted in the scientific community is that they offered Emerson new models for thinking, new ways of perceiving.

While the current, common, clichéd usage of the term "mesmerize" now precisely coincides with Emerson's usage of "magnetize" in the aforementioned passage from "Self-Reliance," we must remember that for Emerson, this was the result of an experiment in language that led to a new formulation of thought. Across his body of work, we may see how Emerson plays with ideas, considering and reconsidering them, constantly revising and reframing them, and never being afraid of contradicting himself, almost as if the revolving interplay of theses and antitheses will lead him and his readers somehow closer to some sense of universal truth. Although Bruno Latour concedes that metaphors can have "the unfortunate consequence of aestheticizing the work of science and weakening its claim to truth" (136), I would argue that metaphor has the power to offer imaginative associations that might make truth more readily visible or understood. Therefore, metaphor does not always necessarily lead to *untruth*, but, rather, it can sometimes reveal or lead to further truths that scientific method may be incapable of reaching through observation alone. Writing on the topic of metaphor, philosopher Clive Cazeaux summarizes the views of predecessors such as of Max Black, Carl Hausman, and Paul Ricoeur, when he writes that "an original, freshly minted trope... is an instance of creative, subjective language yet far from producing nonsense, a new metaphor offers insight on its subject, and, as

such, could be said to be objective or to contain an objective component" (1-2). If we adopt an approach to metaphor similar to that laid out by Cazeaux, we see how we might dissolve traditional binaries that would equate scientific method with objectivity and metaphor with subjectivity. In this way, the practice of creating metaphors is not necessarily antithetical to empiricism, as it would make observations and test out scientific hypotheses against experience, even if its power relies on imaginative projection of associated words and imagery, rather than resting on data compiled via controlled observation.

By metaphorizing electromagnetic corporeality, Emerson is indeed hypothesizing, able to try on an idea today, only to reject it tomorrow. Yet at no point does Emerson demonstrate his full, unquestioning subscription to the tenets of established, legitimate science. Nor does he subscribe fully to the "mumbo-jumbo" of animal magnetism, or other pseudoscience not accepted or authorized fully by the legitimized scientific community. His truth seeking is motivated by a spirit of experimentation, a resistant skepticism toward inherited theory and dogma, an enterprise that allows him to arrive at revelations such as that found in "Solitude and Society," published in *The Atlantic* in 1857, in which he observed that "all conversation is a magnetic experiment." It is through his play, his oscillation between different poles of thought, that he would have his readers arrive at their own understandings of truth.

Approaching Emerson's writing in this way, we might better understand that Emerson's essays ought not to be taken as statements of faith or belief in inherited philosophy, but rather as playful experiments. Lee Rust Brown argues along these

lines when he writes that "Emerson's essays cast themselves...[as] "experiments" within a larger enterprise, an enterprise that promised to revise and reform all its initial positions" (129). By understanding Emerson's essays as experiments, we may understand that we are not necessarily to take everything he says as a sincere affirmation of his own unshakable faith, but rather as pathways to shake up his own faith in inherited ideas, as well as our own.

When Emerson writes in "The Poet" that "man is the conductor of the whole river of electricity," are we to believe that his ideal man or ideal poet would actually be composed of more highly conductive material, and that he would actually serve as a better lightning-rod than his fellow men? Taken literally, Emerson's observation that unlike the ideal man or ideal poet, the common man is unable to allow "the rays or appulses" to "reach the quick," we might think exactly this: Emerson actually believes that some men are more conductive of electromagnetic energy than others, and that this is what leads them to genius—in short, this is what makes them good poets. Again, such thinking would have us believe that Emerson sincerely and unquestionably believes in the pseudoscience that had become so prevalent even among the highest intellectual circles in New England, as well as abroad. This would likewise make one think that Emerson was predisposed to be sympathetic to notions that some human beings were better designed to be geniuses, in anticipation of unfortunate theories of phrenology and later, of eugenics, theories that would have devastating consequences, not only for the people who suffered as a consequence of such thinking, but also for the kind of aspiration to personal liberty and empowering oneself through knowledge espoused so eloquently elsewhere in Emerson's writing.

Such are the sometimes destructive consequences of play: playing with ideas can potentially lead to effects that are both dangerous and undesired. Yet I would argue that such a reading of Emerson's essay would not fully do justice to the playfulness of Emerson's writing. Just as Emerson's playfulness exhibits his own penchant for creativity, so too does it attempt to invoke our own.

CHAPTER 2

"DARING TO TAKE THE 'FULL FORCED SHOCK': EMERSONIAN ELECTROMAGNETIC CORPOREALITY IN MELVILLE'S "THE LIGHTNING-ROD MAN" AND *MOBY-DICK*

For did ye three but once take the full-forced shock, then mine own electric thing, that had perhaps expired from out me. Perchance, too, it would have dropped ye dead. —Herman Melville, Moby Dick

Standin' at the shore/A hurricane calls my name/Beyond all I dream/The electric ocean

-The Cult, from "Electric Ocean"

Comparative analyses in literary scholarship of the work of Ralph Waldo Emerson and Herman Melville have tended to be presented as studies in contrasts. Dating from early on in his posthumous re-emergence into the spotlight of literary criticism in the first half of the twentieth century, Melville has often been categorized and placed in a position of antithesis or counterpoint to Emerson. In his comprehensive biography of Melville, Andrew Delbanco reminds us of how, in the context of a cultural moment "after the fascists had seized most of Europe," American scholar F. O. Matthiessen interpreted Melville's Ahab as a figure who "provided an ominous glimpse of what was to result when the Emersonian will to virtue became in less innocent natures the will to power and conquest" (qtd. in Delbanco 175). Matthiessen's view, while certainly a product of its historical era, also typifies literary criticism of its time, as it places the two writers into opposition and posits Melville as exploring the less innocent, less idealistic, more intrinsically evil aspects and consequences of Emersonian logic that might embody the proverbially "darker" shades on a chiaroscuro canvas of antebellum American literature.

At first glance, the basic facts of the two writers' formative experiences do lend themselves to stark contrasts. Surely, the worldviews of both writers—and the tone and subject matter of much of their later writing— were shaped by the very different lives they led in their youth. These stories bear repeating, despite their familiarity to us.

Despite his New England family ties, Melville was a native New Yorker who spent his young life as a surveyor on the Erie Canal, and later, famously, sailing on whaling ships to faraway locales in places such as the islands of the South Pacific. Emerson, on the other hand, spent his life as a young man studying for the ministry as an heir apparent to his father's pulpit at the First Church of Boston, following an inevitable pathway that would lead through the gates of Harvard. From a purely geographical standpoint at least, the two writers were indeed remarkably distanced from each other as young men, especially given that the state of early to midnineteenth century transportation and communication made their relative locations and experiences worlds apart by today's standards.

But the distance between Emerson and Melville was not merely one of geography: Melville lacked direct access to Emerson, and only knew him through his

books, never spending personal time with the man. In relation to Emerson and other New Englanders who had risen to literary prominence in antebellum America, Melville was effectively an outsider, despite the friendship he formed with Nathaniel Hawthorne, Emerson's prominent yet sometimes critical friend. While Hawthorne was a member of Emerson's generation (they were merely a year apart in age), and shared numerous friends and acquaintances with his Concord neighbor, Melville was never a part of the literary and intellectual circles that centered on Emerson's Concord. Moreover, following his brief flirtation with Transcendentalism and his time spent at Brook Farm, Hawthorne actively distanced himself intellectually from Emerson, Fuller, and others who associated themselves with the literary circles of Concord. As Hawthorne and Melville were such close friends, so, too, we may be led to imagine a similar intellectual distance occurring between Emerson and Melville, a distance typified by what some have argued to be Melville's mockery of Emersonian Transcendentalism in his novel *Pierre*. This oft-repeated view may be found for example in literary critic Michael McLoughlin's claim that Melville's characterization about the love between Pierre and Lucy works as a kind of "mock rhapsody," a "burlesque parody of the lofty attitudes held by the Transcendentalists" (94). The notion that Melville mocks Emerson and the Transcendentalists in *Pierre* is further underscored by Steven Hymowech, for example, when he notes that "the novel clearly mock[s] the Transcendentalists" (109).

The tendency among literary critics to emphasize Melville's mockery of Emerson, and, moreover, to make claims regarding Melville's perceived responses to Emerson's thinking and writing (undoubtedly resulting in some acknowledged or

unacknowledged variation of Bloom's "anxiety of influence"), may also be explained by the significant generation gap between the two writers and the heights to which Emerson's scholarly and literary star had already risen during Melville's formative years. As Delbanco points out, the 1840s was a decade of national debate in which American writers, led by voices such as that of Ralph Waldo Emerson, argued for the necessity of a national literature separate and distinct from England, no longer dependent on English culture, but arising directly from native-born American experience. By the time Melville joined the chorus of voices making claims to this effect, asserting in 1850 that "the day will come, when you shall say, who reads a book by an Englishman?" he had, in Delbanco's words, "joined the discussion belatedly" (77). Arriving late on the scene, Melville was in his own time never able to ascend to the heights of fame achieved by Emerson.

One thing is clear, however: whatever Melville may have thought of Emerson, Emerson did not think much about Melville, if indeed he ever thought of him at all. It is not trivial to note that Emerson was already a sixteen year old college student at Harvard at the time of Melville's birth, and, in a parallel universe, Melville may very well have been seated alongside Henry David Thoreau as a member of the Harvard audience when Emerson addressed its students in his now famous lecture known today as "The American Scholar." Yet, although Melville and Thoreau were near the same age, Melville's lack of proximity and access to Emerson never allowed him to enter Emerson's radar and inner circle in the same way that Thoreau did. The effect of the generation gap and resulting lack of proximity between the two writers is underscored when we consider literary critic William Braswell's 1937 observation that there is

"apparently no record of Ralph Waldo Emerson's opinion on Herman Melville," even though an apparently unread volume of Melville's novel *Typee* was found as part of his collection. Not only did Emerson not know Melville personally, but he did not know much of him, and, given the absence of evidence, it is difficult to know if he held him in high or low regard, or if in fact he had any regard for him at all.

Traditional contrasts made between the two figures often extend beyond biographical considerations and indeed are often carried to their relative aesthetics and literary styles. A prime example of this occurs in F. O. Matthiessen's seminal work *American Renaissance*, in which he muses on how he might improve the drama of his own work of literary theory by placing the authors in binary opposition: the "optimistic strain from Emerson to Whitman" would contrast with "the reaffirmation of tragedy by Hawthorne and Melville"(179). While, for his part, Matthiessen does back-pedal from this all too pat binary, attempting to blur the sharpness of the distinction he makes by observing that such a "black and white contrast would be too dramatic," and noting that "it would tend to obscure the interrelations between [them]," he nonetheless significantly contributes to constructing a sharp contrast, a contrast more apparent by the division of his work on these writers into distinct, separate chapters. Even in qualifying this distinction, Matthiessen surely reifies it.

Melville was at times privately and even openly critical of Emerson and his work, and evidence of such attitudes does little to mitigate the persistent contradistinctions between the two writers in literary scholarship. Not only is Melville understood to be mocking Emerson in *Pierre*, but he also said to caricature Emerson through the character of Mark Winsome in his 1857 novel *The Confidence-Man*. Rob

Wilson is among the critics who adopt such a view, writing for example that "Melville's mock-Emersonian character, Mark Winsome, cannot tell the difference between faith and fraud, parable and life" (239). There is a remarkable resemblance between Wilson's characterizations of Melville's attitudes toward Emerson in The Confidence-Man, and the oft-repeated claims of literary critics who would argue that Nathaniel Hawthorne mocks Margaret Fuller with the character of Zenobia in his novel *The Blithedale Romance*, widely understood as a thinly veiled satire of the Transcendentalist experiment at Brook Farm. As F. O. Matthiessen pairs Melville and Hawthorne as part and parcel of a darker turn in American literature, revealing a "reaffirmation of tragedy" and an "antithesis" to Emerson and Thoreau (179), we may, if we follow Matthiessen's lead, be unable to distinguish between the two friends and fellow writers. As such, we may be led by such critics to believe that as goes Hawthorne, so too goes Melville. If Hawthorne expresses derision toward Fuller, and Fuller was intimately associated with Emerson and Thoreau, then, according to this logic, it would naturally follow that as Hawthorne's friend, Melville would express derision toward Emerson.

Yet to argue that Melville's attitudes toward Emerson's scholarship and ideas are best described as derisive may lead to hasty generalizations and oversimplifications of the matter. A movement that would pigeonhole Melville as only a contemptuous critic of Emerson may not fully do justice to his treatments or considerations of Emersonian ideas in his writing. As Hymowech concedes, in *Pierre*, Melville demonstrates that his ideas "deriv[e] from that which is ridiculed" (109). Emerging scholarship over the past three decades has muddied the waters of such

generalizations by significantly complicating contrasts traditionally made between the two writers, and in so doing, blurring or even dismantling binaries constructed by Matthiessen and others. Some scholarship has even gone as far as to argue that Emerson indeed had profound sway over his younger contemporary, as seen in John B. Williams' 1991 book *White Fire*, just to name one prominent example. Given the surge in the number of contemporary Melville scholars who have challenged the assumptions that undergird the diametric opposition between the two writers, it is no longer adequate to think of them merely in terms of their contrast. Instead, we might further examine and interrogate the extent to which Emerson influenced and impacted the work and philosophy of the younger writer.

We can observe this more recent turn in Melville criticism by following the lead of Sidney P. Moss, who argues not only that it is fallacious to assume that "Melville's emotional and intellectual temperament was attuned to Hawthorne's," but that it is also a mistake to view Melville as "anti-Transcendentalist and especially anti-Emersonian." But even if we agree with Moss that Melville is not anti-Emersonian, does that mean that he is necessarily pro-Emersonian? It might be more accurate to say that Melville's reception of Emerson was mixed. Ramón Espejo Romero suggests a certain ambivalence and inconsistency in Melville's approaches to Emerson and Emersonian thought, writing for example that Melville's "often quoted" letter to his friend Evert Duyckinck, in which he expresses his "disappoint[ment] in Mr. Emerson," in fact "establishes a pattern of simultaneous embrace and rejection of Transcendentalist ideas." Following this train of thought, we may find that Melville does not so much respond to or reject Emerson as much as he rather enthusiastically

enters into conversation with Emersonian concepts that had already flooded the marketplace of ideas upon Melville's arrival to the antebellum American literary scene.

In fact, throughout much of Melville's career, he often expressed open admiration for Emerson, even if his admiration was not without condition. This conditional admiration and sympathy is exemplified by his reaction after hearing Emerson speak for the first time on a short trip to Boston in 1849, when he wrote to Duyckinck, "say what they will, [Emerson]'s a great man" (qtd. in Sealts 25). While Melville acknowledges that Emerson is not above criticism, he nonetheless appreciates and acknowledges his contributions. Regardless of whatever critique he might offer of Emerson's ideas, it is clear, at least in this instance, that he held the man himself in high regard.

Although Emerson was not apparently a reader of much if any of Melville's literary works, the reverse surely cannot be said. Although Melville was not formally introduced to Emerson's ideas until after he had already become an established novelist and contributor to periodicals in the late 1840s and early 1850s, the marginalia written in his volumes of Emerson demonstrate his marked and avid interest in Emerson's prose. A reading of Melville's marginalia reveals that although he sometimes felt disenchanted by Emerson's Platonic tendencies, he often employed the word "noble" when reacting to significant passages in Emerson's work, bringing to light his sympathy with Emerson's sentiments, if not wholly all of his ideas. Moss observes, for example, that "the annotations Melville made in [Emerson's] books indicate a sense of discovery, and are, on the whole, in approbation of Emerson"

(126). While Emerson's view of Melville remains at best mysterious and at worst non-existent, Melville's conversations, letters, and other written works reveal that his view of Emerson may be understood as one of overall appreciation, even though he certainly recognized fallacies and flaws in the elder writer's thinking. What must be remembered is that the marginalia that Melville left behind in his copies of Emerson's works amply demonstrate that he was an enthusiastic and active reader of Emerson, even if he occasionally took issue with certain points made by the so-called "Sage of Concord."

It is not my intention, however, to settle the longstanding debate regarding the extent of Emerson's influence, or lack of influence, on Melville. Instead, I intend to examine briefly one area in which Emerson and Melville demonstrate remarkable similarity: namely, their shared interest in the burgeoning science of electromagnetism, and the related pseudoscience of Mesmerism, also known as animal magnetism. Not only did both writers demonstrate through their writing a keen interest in electromagnetic science and the pseudoscience that emerged alongside it, but both were especially eager to mine and explore developments in these fields for their potentialities for poetics, as a novel source of vivid sensory imagery. Their shared interest in electromagnetic science is not surprising when we consider the widespread and growing interest that existed at that time in antebellum American culture as a whole, as evidenced by previous chapters. The degree to which Melville's thinking on these matters might have been specifically informed by Emerson's approach to the subject is unclear, if indeed we find any evidence at all. Still, an examination of the overlaps and intersections between the two writers' relative

approaches to the topic yields remarkable insight: Melville and Emerson are curiously similar in their readiness to deploy a new, emerging vocabulary associated with electromagnetic science and pseudoscience in order to speculate and imagine that one's own inherent electromagnetic conductivity—and, more importantly, one's ability to conduct electromagnetic energies safely and then transmit them to others in the form of language—could be something that could be replicated in real life, outside the realm of literature. In playing with this idea, both Melville and Emerson demonstrate their entry into an ongoing discourse in the mid-nineteenth century, in which metaphors of bodily electricity were increasingly confused and conflated with scientific or pseudoscientific hypotheses. Both writers express ambiguity and ambivalence toward the idea that electromagnetic energies could be conducted and conveyed by individual bodies through the medium of communication, as they wrestle with new conceptualizations of bodies and minds that recent scientific and technological developments, such as the advent of the telegraph, would inspire and engender.

So, how are these writers' attitudes toward electromagnetism similar, then? What about it inspired their fascination? We might first examine both Emerson and Melville's attractions to the "fluidity" of electromagnetism, as it darts and travels through the atmosphere between charged particles and bodies. From the outset of electrical theory, dating back to Franklin and other natural philosophers of the mideighteenth century, electrical movement was likened to "fluidity" in the language used to describe it. Although electromagnetism was shown by Oersted, Faraday, and other pioneers in electromagnetic theory of the early to mid-nineteenth century to be in fact

a "force," and not a fluid as had been originally thought, vocabulary that would associate electromagnetism with "fluidity" continued to persist in language and literature, surviving into the mid-nineteenth century and beyond, remaining with us to today. With terms such as "flow" and "current," words that we would typically associate with the movement of water, we still find that notions of "fluidity" predominate in discussions that would capture in words the appearance of electromagnetic phenomena, despite the long-proven dissimilarity between electromagnetism and fluids. As such, the persistent belief that electricity is somehow like a fluid—or, even more problematically, that it *is* a fluid— has permeated and saturated popular thought to the point where the concept is not only rarely questioned, but has often resulted in misprision inspired by faulty reasoning.

A prime example of this misprision is found in animal magnetism. Long before scientific consensus determined that electricity and magnetism were two inseparable components of an electromagnetic "force," rather than two separate types of "fluid," as was previously commonly believed, believers in the pseudoscience of animal magnetism imagined that magnetic "fluid" could build up in parts of the body, causing anguish and disease. Such disease could be remedied only by passing of magnets, a wand, or merely the bare hands of a trained mesmerist who would open blockages and regulate the flows of magnetic energies through the body. This could be done for an individual patient, or even for a large group if necessary. Using an instrument called the "baquet," defined by Robert Fuller as "little more than a large oaken tub around which up to twenty people at a single sitting could be supercharged with animal magnetism," Mesmer could "prance about waving a wand at one patient

after another" (Fuller 6-7). Mesmer believed that "with sufficient concentration and willpower, a healer could capacitate, store, and transmit potent energies from his own person to the patient" (Fuller 6). A presumably healthy body would be able to receive, circulate, and pass on the magnetic fluid without any impedance in its flow. The healer, by storing energies and then transferring and passing them to the "sick," could then bring about cure.

When electricity and magnetism were finally proven to be inseparable by Oersted, the result did not dissuade believers in animal magnetism from holding fast to their beliefs, but, rather, the discovery bolstered their beliefs, as the union between the two branches of science might serve as further evidence that would show that Mesmer was somehow correct in believing that one cure could treat all manner of illness. Given the previous legitimation of medical electricity (i.e. application of electricity directly to the body for its supposedly curative effects) in the previous decades by the established medical community, it suddenly became possible for mesmerists to believe that their suspicions had been confirmed, rather than denied. If medical electricity could be legitimized, and electricity and magnetism were part of the same force, then animal magnetism could therefore also be legitimized. As the news of developments in electromagnetic theory spread and became part of the American consciousness, enthusiastic imaginations ran wild. Those who would choose to ignore the amply demonstrated lack of similarity between electromagnetism and more familiar fluids, such as water, might jump to hasty conclusions. One such conclusion was the persistent thought that if only one could somehow manipulate these electromagnetic "fluids," through mystical or medical means, then the overall health of the human

body could be improved. Given the fact that even some established practitioners of medicine adopted such pseudoscientific views, the line between medicine and mysticism might be quite significantly blurred. As medical doctors replaced older notions that would regulate bodily fluids through bloodletting and other manipulations of the "humors," with regulations of electromagnetic fluids, using means and justifications equally dubious and equally resting on shaky foundations of logic—or, more precisely, lack of logic—fallacies ensued and became widespread.

But could such fallacies prove useful and productive? From a modern day standpoint, it might be easy for us to dismiss such pseudoscientific, pseudo-medical thinking as quackery, pure and simple. But what happens when we apply notions of the supposed workings of electricity and electromagnetism to conceptions of the fluidity of thoughts and language, words written, spoken, and unspoken? Is this quackery as well? What happens if we think of language as moving in currents, just as electromagnetic force is described? Could language, like electromagnetic force, flow between and exert influence on individual bodies? If so, could we free language from being fixed or limited to any one specific origin, untethered from any particular individual or any discrete material object? Could thoughts and words be freed up too, if only we could somehow remove the blockages that might impede their flow? Asking questions such as these within the context of an early nineteenth century worldview, we might come to see how a Lockean epistemological model that would have us think of the impressions that experience engraves on our brains might be displaced by new models that would understand experience as engendering *flows* of communication. Like electricity, such flows might be understood as constantly

moving and dynamic, surging and coursing between and through ourselves and other bodies. Through endless transfers of energy, such flows could orient others toward different courses, moving in different directions and toward different poles than might have otherwise been suggested by their original or intended trajectories on a given plane, or between planes. Decided misprision of electromagnetic science could thusly inspire creative individuals toward innovations in imagining how human communications operate.

Enter Emerson. We may see Emerson's admiration for the fluidity of electromagnetism, as well as his application of the supposed "fluidity" of electricity to a reframing and reimagining of how humans communicate ideas, in his 1844 essay "The Poet." In one passage in particular, Emerson paints a vivid image of a poet struggling and stammering to find the power within to express experiences in the form of language, who then finds this imaginative power in the form of a kind of electricity:

> Doubt not, O Poet, but persist! Say "it is in me, and shall out." Stand there baulked and dumb, stuttering and stammering, hissed and hooted, stand and strive, until, at last, rage draw out of thee that dream-power which every night shows thee is thine own; a power transcending all limit and privacy, and by virtue of which a man is the conductor of the whole river of electricity.

Vividly associating electricity with the natural powers of the coursing water of a raging river, Emerson speculates that imaginative power, like electricity, may be

brought to move freely without limitations or boundaries, as an energy drawn from and flowing in from one's natural surroundings. The fluid, watery imagery of the "river" recalls other key moments in Emerson's essays that pivot on "currents" and "flows." Such moments are best exemplified by the famous "transparent eyeball" passage from the essay "Nature," in which he writes that "the currents of the Universal Being circulate through me." Similarly, in "The Poet," the influx of currents of "dream-power" demonstrates that one can draw upon a naturally occurring power that one may encounter in sleep but may not realize is there in waking hours. Such power is characterized by its fluidity: it is not bound within the territory of any one particular individual but rather transcends individuals and borders. The knowledge that such power is accessible and available to all humankind if called upon can then become an epiphany that might help the stammerer to find the energy necessary to transform that power into words. To put it another way, the energy supplied by this dream-power might refresh, animate, and invigorate the individual who conducts it, who then might transfer that energy to others in the form of the poetic utterance or line of verse.

Emerson casts the image of a body that draws upon the resources of nature and harnesses that energy in a way that would transform it into powerful, effective verse, in tune with and in harmony with the nature from which it was at least in part derived. As argued in the previous chapter, Emerson's employment of electricity as a trope in "The Poet" and elsewhere, both as a device for understanding flows of communication and for translating experience into poetic composition, unlocks a novel comprehension of the poet as "conductor." Such a poet may magnetically draw in energies and

experiences, as well as lead and direct others to share in those energies and experiences by transferring them in the form of the spoken or written word.

Examining Melville's works, we might see how, like Emerson, he too called upon vivid imagery that would liken human communication to electromagnetic "fluidity." Such electromagnetic imagery would surely resonate with audiences for whom electromagnetic science, and the pseudoscience that emerged from it, were still spectacular, inspiring wonder and inciting speculation and interest. Clearly, Melville shared with Emerson the notion that language at its best could, like electromagnetic energy, flow into and circulate through the body before being passed on to others.

As Richard Hardack suggests, this love of fluidity is apparent in an 1851 letter to Hawthorne, in which Melville writes, "I thank you for your easy-flowing long letter (received yesterday) which flowed through me, and refreshed all my meadows, as the Housatonic—opposite me—does in reality" (140). Given the persistence of likeness between electricity and fluid that we have already seen, we may see the connection between Melville's "Housatonic" and Emerson's "river of electricity." Melville's love of linguistic fluidity and fluidity of thought is surely translated into his own literary practice, and this is reflected by how often the word "fluidity" is used to describe Melville's own manipulations of language. This is evident for example in the work of Arthur Versluis, who observes that "the narratorial fluidity of *Moby Dick* highlights the general fluidity of Melville's thought itself" (100), or that of Richard Brodhead, who writes that "Melville's fluidity of mind is also expressed in his penchant for attaching multiple, incrementally accretive significance to key images in the action" (25). Given the oft-mentioned "fluidity" of Melville's work, he may put into practice

Emerson's assertion that the writer/poet should resemble a "conductor" of the "river of electricity," who can then translate that "electricity" into powerful, fluid language that will move and affect others.

Yet, if we study the character of Ahab in *Moby Dick*, published some seven years after Emerson's "The Poet," it becomes apparent that the influx of electricity or "dream-power" may not always be such a welcome visitation. Melville's characterizations of Ahab in the chapter entitled "The Chart," as well as other places throughout the novel, may point to some revisions he might have made to Emerson's otherwise "noble" observations in "The Poet." In "The Chart," Ahab obsesses over the charts before him as he imagines his pursuit of the white whale. After carrying these obsessions with him to sleep, Ahab soon finds that they bring about uninvited intrusions of his dreams into his waking thoughts, creating discomfort and even madness. Interestingly, the intense energy of these dreams is likened to electricity, in the form of lightning:

> Often, when forced from his hammock by exhausting and intolerably vivid dreams of the night, which, resuming his own intense thoughts through the day, carried them on amid a clashing of phrensies, and whirled them round and round in his blazing brain, till the very throbbing of his life-spot became insufferable anguish; and when, as was sometimes the case, these spiritual throes in him heaved his being up from its base, and a chasm seemed opening in him, from which forked flames and lightnings shot up, and accursed fiends beckoned

him to leap down among them; when this hell in himself yawned beneath him, a wild cry would be heard through the ship; and with glaring eyes Ahab would burst from his state room, as though escaping from a bed that was on fire.

Ahab's anguish, as well as the "phrensy" that he experiences, may be understood as a symptom of an overabundance of electromagnetic energy in his inflamed brain. A trained Mesmerist might understand this as the result of a blockage of the circulation of electrical fluid within his body. Along these lines, we may wonder what may happen if this lack of regulation of fluid were left to continue unabated. This might lead Ahab's body to fail, in a kind of aneurism that might resemble a fiery explosion or burst of energy—or, in a nightmare scenario, a kind of spontaneous combustion along the lines of Charles Brockden Brown's *Wieland*.

But to what extent does this description of Ahab's torment work as merely Melville's attempt at vivid sensory imagery, and to what extent does it work as a pseudo-medical description of Ahab's physical and physiological breakdown? Given an audience still quite open to the likelihood that there was truth to be found in the pseudoscience of animal magnetism, it is reasonable to conclude that Ahab's physical as well as his mental and spiritual ailments might have been plausibly brought on by lack of proper flows of electromagnetic energy within the body. Could it be that a healthier version of Ahab, with a better balance of energy flows, could become, in a better situation, a poet such as that described by Emerson, able to conduct the energies around him and pass them on in the form of beautiful language, rather than in the form

of a "wild cry" or wretched scream? In short, is Ahab's inability to translate his experience into more coherent, intelligible forms of communication a sign and symptom of his failing physical and mental health? Does Ahab suffer from a condition that could be cured, if only he would follow Mesmer's claim, as Robert Fuller reminds us, that there was "only one illness and one healing" (5)?

Further similarities in Emerson and Melville's treatment of the subject of electromagnetic corporeality may be found when we consider how both writers imagine the body as a kind of lightning-rod and electrical conductor. In their imagery and depictions, both writers consider how flows of energy might be transformed into thoughts and words also drawn from or conducted from nature, and both opine on how such energies, in the form of words, might be transferred or transmitted to others. Returning to Emerson's "The Poet," we find that Emerson claims that one who possesses poetic genius is more conductive of natural energies than others, is better able to regulate these energies, and, more importantly, may pass on these energies to others in the form of verse:

> Too feeble fall the impressions of nature on us to make us artists. Every touch should thrill. Every man should be so much an artist, that he could report in conversation what had befallen him. Yet, in our experience, the rays or appulses have sufficient force to arrive at the senses, but not enough to reach the quick, and compel the reproduction of themselves in speech. The poet is the person in whom these powers are in balance, the man without impediment... (215)
Emerson imagines the poet as kind of lightning-rod—a conductor of natural energies who, via "appulses," is able to direct these energies to a central point, namely, the self. By applying such an Emersonian perspective to analysis of Melville's character, we might ask: is it merely that Ahab would represent a counter-example to his description of the ideal poet or artist? Is Ahab's problem that he cannot "report in conversation what had befallen him," that his "powers" are not "in balance," that he is a man with "impediment?" With regard to the "phrensies" he experiences after obsessing about the white whale, the answer would seem to be yes.

Yet Ahab is also a kind of lightning-rod, not only in the modern-day clichéd sense of one who attracts attention, infamy, and controversy, but also in a much more real and physical sense. We might infer from the novel that his body involuntarily became a lightning rod when he miraculously survived a direct lightning-strike, long before the action of the novel begins, pondering the open sea from the perspective of the crow's nest in the at the mast-head of a ship. Certainly, he has the scar to show it. While competing narratives in the novel might offer different explanations for the lightning-like scar which travels from Ahab's head to his toes, a lightning strike would best explain why the scar traversed the entire length of his body. The scar is described most fully in the chapter simply titled "Ahab":

> His whole high, broad form, seemed made of solid bronze, and shaped in an unalterable mould, like Cellini's cast Perseus. Threading its way out from among his grey hairs, and continuing right down one side of

his tawny scorched face and neck, till it disappeared in his clothing, you saw a slender rod-like mark, lividly whitish. It resembled that perpendicular seam sometimes made in the straight, lofty trunk of a great tree, when the upper lightning tearingly darts down it, and without wrenching a single twig, peels and grooves out the bark from top to bottom ere running off into the soil, leaving the tree still greenly alive, but branded. Whether that mark was born with him, or whether it was the scar left by some desperate wound, no one could certainly say. By some tacit consent, throughout the voyage little or no allusion was made to it, especially by the mates. But once Tashtego's senior, an old Gay-Head Indian among the crew, superstitiously asserted that not till he was full forty years old did Ahab become that way branded, and then it came upon him, not in the fury of any mortal fray, but in an elemental strife at sea. (184)

Although the "old Manxman" who speaks shortly thereafter is older than both Tashtego and the "old Gay-Head Indian," and therefore is treated with more reverence and considered more credible than the other fellow sailors who gathered to speak about the origins of Ahab's scar, the narrative that he offers is not necessarily convincing. Although the old Manxman believes that Ahab's scar is in fact a "birthmark" that runs "from crown to sole," it is doubtful that this would in fact be the case. While a birthmark that ran from "crown to sole" would be an extremely rare if not impossible occurrence in medical history, a similar scar left by a lightning strike

would not, especially for one sitting atop the main mast in an era before lightning-rods were regularly installed on ships. A more plausible scientific explanation of the scar would be that the lightning struck the ship's mast near to Ahab's head, and that the electrical current traveled through the entirety of his body on his way down the mast to be discharged into the ship and the water below. Keeping this in mind, we might argue that the old Gay-Head Indian's narrative, pinpointing an "elemental strife at sea" (or, to put it another way, a "strife with the elements while at sea") as the origin of Ahab's scar, would be far more plausible. This version is lent further plausibility if we consider that the old Gay-Head Indian had actually known Ahab for some time, serving under him as a member of the crew, whereas the old Manxman had only just met Ahab for the very first time.

As we might imagine, if we reconsider Thoreau's observations of the aftermath of a lightning strike discussed in the previous chapter, such vertical scars like that on Ahab's body, would not be unusual for trees that are struck by lightning. If someone had only seen trees after they had been struck by lightning but had never seen its effects on an actual human body, that person might imagine that human bodies would carry similar scars resembling those found on trees. In reality, this proposition would be false, however. It would be more likely for an actual lightning scar to be not a slender vertical line, but rather to branch out in a flowery, zigzagging, lightning-like pattern. This might lend more credence to the old Manxman's theory that the vertical scar on Ahab's body was a birthmark, albeit a very unusual one. Yet, without access to images of actual lightning scars, either from his personal experience or from photographic evidence, Melville may have had to rely on documentary, anecdotal

evidence, or even oral testimony, in order to construct this image. Given the prevalence of lightning strikes on ships of Melville's area, particularly whaling ships, some of this testimony or anecdotal evidence may have even come from fellow sailors, or entries from ship's logs. This may help to explain the dissimilarities between the scar described by Melville and actual lightning scars that we might observe in photographic evidence today.

One prevailing myth that was propagated in the mid-nineteenth century was that when lightning struck an object in close proximity to human body, the outline of that image could be somehow burned onto the skin of the victim. We find this for example, in an 1857 article from the periodical *Life Illustrated*, in which the author refers to the experiences of a woman from Lugano in Italy in 1847:

> ...[she] was sitting near a window during a thunderstorm, and perceived the commotion, but felt no injury; but a flower which happened to be in the path of the electric current was perfectly reproduced on her leg, and there it remained permanently. (70)

Could it be that Ahab's "branding" was the result of Melville's imagination that a similar action could be possible, that the image of the lightning-struck mast, a kind of "rod" in its own right, could have become perfectly reproduced on the entirety of his body? Could it be his proximity to the lightning, and its failure to cause bodily injury, that left the scar but failed to kill him?

A counterargument against the possibility of Ahab's scar being the result of a lightning-strike is that the "lividly whitish," "rod-like" mark little resembles actual images of lightning scars that we might examine today. It is likely that an actual lightning scar on a human being would be reddish in color rather than "whitish," like Ahab's, although it is certainly possible that a scar that was initially red could whiten in color, given the passage of time. Still, Melville's choice of language in calling the scar "rod-like," indeed evokes an unmistakable resemblance between Ahab's conductive body and that of a lightning-rod.

Moreover, the notion that Ahab's body is "rod-like" is further reinforced by the fact that Ahab's body is initially described in this passage in metallic terms, as "made of solid bronze." While not nearly as conductive as other metals such as copper, bronze is certainly conductive and therefore would attract lightning strikes. Melville would have us imagine a statue placed at the top of a large building or dome, also often the target of lightning strikes in an age before lightning-rods were regularly installed. Such imagery is found in the chapter entitled "The Mast Head," which specifically concerns the day to day vicissitudes of the statue-like, monument-like men who are assigned to perch atop the crow's nest:

Of modern standers-of-mast-heads; mere stone, iron, and bronze men; who, though well capable of facing out a stiff gale, are still entirely incompetent to the business of singing out upon discovering any strange sight. There is Napoleon; who, upon the top of Vendôme, stands with arms folded, some one hundred and fifty feet in the air;

careless, now, who rules the decks below; whether Louis Philippe, Louis Blanc, or Louis the Devil. Great Washington, too, stands high aloft on his towering main-mast in Baltimore, and like one of Hercules' pillars, his column marks that point of human grandeur beyond which few mortals will go. (225)

While in reality the man who would be assigned to the mast-head would in fact inhabit a lower rung of the ship's hierarchy, the view from high above allows one to imagine a temporary upending of such social hierarchies. From this high vantage point, akin to standing atop the Washington Monument or the column at Vendôme (both sites, incidentally, honoring early military leaders of democracies forged in bloody revolution), he can imagine that he himself could be, in a sense, captain—or at least captain of himself—immune from the orders of whatever captain may govern the ship below.

The job of manning the mast-head also brings with it—or should bring with it—a sense of responsibility and duty to the crew below, as the job entails spotting both danger lurking ahead and alerting the crew to opportunities of hunting whales that may be spouting at the horizon. Yet the monotony of the job may lead to a certain aloofness or indolence that might bring the man to ignore or miss the dangers or opportunities that might arise. To effectively man the mast-head requires someone of particular patience, fearlessness, and resilience, who is willing "to not be driven from his place by fogs or frosts, rain, hail, or sleet"—in short, someone who would "di[e] at his post rather than be moved" (224). Such resilience requires certain rigidness, a

certain "rod-like" quality, a quality that is underscored by Melville's association of the "mast-head-standers" with phallic, "rod-like" monuments erected to honor military leaders. If we understand that Ahab once inhabited the mast-head, much like Ishmael later inhabits the mast-head, we may then understand that, upon being struck at sea, Ahab's body "became"—or was rendered as— a lightning-rod. And somehow, due either to Ahab's metallic composition or his rigid, "rod-like" composure, forged in fire, he lived to tell the tale.

To recap our reading of the passages we have examined from Emerson's "The Poet," then, we may paraphrase the essay in the form of the following argument: while the average person may not be able to survive conducting energy to the "quick," the poet or artist does. As I have argued, Ahab does, as well. So, is Ahab therefore somehow similar to Emerson's vision of the ideal poet, and if so, how? What exactly was it about Ahab's composition or composure that let him live when others would have—or should have—perished? Has his near-death experience somehow changed the flow and balance of energies in his body, "magnetizing" him on a new course and mission, i.e. capturing and killing the white whale? Certainly Melville hints that Ahab's "rod-like" mark, along with his missing leg, represents life experiences that mysteriously compel him to undertake action counter to the work for which the Quaker owners of the *Pequod* have commissioned him, as he monomaniacally and selfishly seeks revenge against the whale, rather than conforming to the productivity demanded by the investors and profit-seekers who pay his wages. But could these mysteries be explained by a pseudo-medical cause, namely, that the disruption of electromagnetic energies in his body caused by a lightning strike at the mast-head has

brought about changes in flows that might lead to blockages and inflammation, therefore resulting in a "phrenzied" state of health?

To become a "poet" or "artist" in an Emersonian sense, Ahab must somehow translate the energies from his experience into words that could move and affect others. And this is precisely what Ahab seems moved to do. As it would be near impossible for Ahab to carry out or complete his mission without the assistance of his crew, he must magnetize others toward a mission that would gravitate from the original intended purposes of the *Pequod*'s voyage. Not only does Ahab merely conduct natural energies to the "quick," but he is compelled to translate the energy of his experiences at sea into some force or fluid that he would work on to pass on to his crew members, just as a trained Mesmerist would pass hands over a patient and correlate the patient's flows of magnetic energy with his or her own. In this way, Ahab may mesmerize or magnetize his crew to accept the fateful mission, which to the rational mind may have appeared impractical, mad, and even suicidal. Yet, given a lack of practicability of a pseudoscientific "transference" of electromagnetic "fluid," he must rely solely on language as his medium and vehicle that might allow him to hijack the ship so that he might satisfy his own selfish desires.

We are introduced to Ahab's mesmeric techniques in "The Quarter-Deck" chapter. Gathering his ship's mates into a small circle, and having them cross their lances (a type of harpoon), Ahab dramatically touches the axis of the crossed lances of his ship's mates with his hands. In so doing, Ahab would "shoc[k] into them the same fiery emotion accumulated within the Leyden jar of his own magnetic life" (240). Despite his will to do so, the task proves impossible, or, at the very least, it is not

immediately evident that the experiment has succeeded. Straddling the line between hyperbolic romantic imagery and the invisible brush strokes of a master Realist, Melville leaves it unclear as to the extent that this scene might describe an actual physical process that could be recreated outside the realm of fiction. This leaves it an open question as to whether or not Ahab's imagination of transference of energy to his mates was merely yet another symptom of his growing madness. In fact, at a time when animal magnetism was a topic over which very smart, very well-educated people could earnestly debate without being laughed out of the room, the idea that one could transfer energies stored in oneself in order to change or realign the energy flows of others was not necessarily a mad, preposterous, or absurd one. In other words, such an occurrence might be understood as just plausible enough that one could read it not only as vivid imagery, but as something that human beings could in fact do.

During an era when leading intellectuals such as Margaret Fuller could effectively persuade audiences, for example, that "the especial genius of Woman [is] electrical in movement," or that "women of genius" might be characterized as having the "depth of eye and powerful motion [that] announced the conductor of the mysterious fluid," it would not be absurd in this context to understand Ahab, too, to be a kind of "genius," albeit a destructive one, unlike the life-giving "women of genius" described by Fuller in *Woman in the Nineteenth Century*. Likewise, in a time when one might find the baquet to be a legitimate medical instrument, it very well could be that Ahab could, somehow, in a pseudoscientific variation of Franklin's "circle shock," actually transfer and transmit the energy and experiences of his life into the waiting conductors of his assembled crew, despite being for whatever reason unable or

unequipped to do so in his experiment on the quarter-deck. Or it could be that Ahab's madness blinds him from distinguishing between fantasy and reality to the point where he cannot realize that such a "circle shock" without the presence of a Leyden jar would only be the product of his active imagination, not something that could actually be accomplished in scientific practice and experiment. In any case, Ahab *imagines* that he could effectively polarize his crew, much in the way that a trained Mesmerist might realign the electromagnetic energies of patients. Yet while a Mesmerist would presumably manipulate the power of electromagnetism to heal, Ahab would do the same for a nefarious purpose, namely, to kill.

While this situation offers Ahab a moment to lead his crew to achieve a bond that will polarize them in the direction he would take them, it is also a moment of betrayal of those who remain at home on land, who demand productivity and profit that the pursuit of the white whale is sure to threaten and destroy. In this way, the act is one of non-conformity and defiant rejection of the capitalism and the work ethic that reigns on land, and, as such, is a moment of ultimate selfishness and self-reliance: Ahab is determined to follow his own lead and act and think independently, rather than follow and obey those who hold the purse-strings, namely, the owners of the *Pequod*.

But to what extent are we to sympathize with Ahab's self-reliance and independence of thought, attributes so often lauded by Emerson? To what extent might he resemble attributes of Emerson's "poetic genius," and to what extent is he merely mad? In short, to what extent may he be considered truly a hero, and to what extent an anti-hero, or villain? Such questions are central to our readings of the novel,

yet the fluidity of Melville's language and narration in the novel make such questions truly difficult and even impossible to resolve. It is a difficult balancing act, and a dilemma that Melville never satisfactorily answers. Considering the passage we considered from "The Charts," we may wonder if what separates Ahab from Emerson's "poet" is not that Ahab lacks the ability to conduct natural energies to the quick, or that he lacks the skill to successfully transfer them to others through language or other means, but rather that he lacks the ability to keep such powers in "balance." From the perspective of one who might believe in animal magnetism, one might say that Ahab's constitution is such that he is thrilled, excited, and agitated by the touch of nature, yet the inherent blockage of energy flows in his body is what leads to the excruciating, howling pain of his throbbing, inflamed head. It is not necessarily that Ahab doesn't have the raw potential to become an artist in the Emersonian sense, but rather that he is a failed artist, or, alternatively, an artist who has taken on an impossibly large or immensely unpalatable task, as his *chef-d'oeuvre*. While mammoth in its ambition, his quest of killing the white whale is one that others might find repugnant or repellant.

If Ahab truly suffers from intracranial inflammation, as was implied by the passage we previously examined, this could help to explain why he is led to such rash, life-threatening, irrational decisions, such as his decision to resist Starbuck's pleading to lower the ship's lightning rods into the water in order to conduct destructive energy away from the ship in the midst of an electrical storm so strong that it lights up the masts at their tips. In this chapter, entitled "The Candles," we are presented with

exactly this image, the image of a ship whose three masts are lit just like candles, due to the electromagnetic phenomenon known as St. Elmo's Fire:

All the yard-arms were tipped with a pallid fire; and touched at each tripointed lightning-rod end with three tapering white flames, each of the three tall masts was silently burning in that sulphurous air, like three gigantic wax tapers before an altar. (669)

Unphased by this impressive phenomenon, and impervious to the certain doom that it would portend, Ahab instead stands "erect," even "rod-like," in the face of the impending and ominous threat to life and limb. In this way, he might embody the man whose own spine is his best lightning-rod, in an Emersonian or Thoreauvian sense. Even though by the publication of *Moby-Dick* in 1851 Emerson had not yet composed the aphorism in which he claimed that "the best lightning rod for your protection is your own spine," this scene clearly correlates with Thoreau's suggestion to Emerson to this effect, discussed in the previous chapter. While it is not clear that Melville had come to compose this scene after having specifically encountered Emerson's ideas (or, to be more precise, Thoreau's), it is remarkable to observe how both writers, through very different journeys, conclude that somehow the defiant, self-reliant body, that can stand erect and with rod-like spine in the midst of a thunderstorm, might somehow better survive its danger. Ahab would prefer to be his own best lightning rod, even if it means the destruction of the ship and its crew, rather than rely on a technology that could save his life, that could "carry off the perilous fluid" into the water.

If we agree that Ahab survived a lightning strike in the past, we may see why he has no reason to believe that he will not survive lightning strikes again, and why he is filled with self-confidence at a moment when Starbuck and the crew are ready to shrink in terror. That this was the case is shown by the passage that follows, in which Ahab effectively admits that the scar that he carries is not something he has worn from birth but rather is a mark that was given to him while on the seas, as the "old Gay-Head Indian" had thought:

> 'Oh! thou clear spirit of clear fire, whom on these seas I as Persian once did worship, till in the sacramental act so burned by thee, that to this hour I bear the scar; I know thee, thou clear spirit, and I now know that thy right worship is defiance. (672)

As the St. Elmo's fire has lit the ship's masts like tapers before an altar, the ship becomes a kind of site of worship, recalling an earlier time Ahab spent on the high seas in which he engaged in a similar form of worship, a "sacramental act," in which he was burned by the "spirit of clear fire." This act of worship which resulted in his being burned—and indeed "branded"— has left a permanent scar, a scar that to him represents a life lesson: "defiance" is the "right" stance to adopt in the presence of the "clear spirit" that is the object of his apostrophe. In this act of singular defiance, in which Ahab would attempt to attain a kind of invincibility or immortality, as a Promethean figure who has mastered divine energy and is therefore no longer afraid of

it, Ahab serves as a perfect example of the fearless self-reliant figure so lauded by Thoreau and Emerson.

Yet we are left once again wondering, is Ahab merely mad, or is he a "genius," in the sense employed by Emerson or Fuller? Are both possible simultaneously? How sympathetic is Ahab, really? Again, Melville does not help us to sew up answers to these questions. If we agree that Ahab is "mad," or, alternatively, an example of a "genius" gone horribly wrong, then we might agree with Matthiessen's assertion that Ahab's "less innocent nature" and resulting "will to power and conquest," with disastrous, deadly consequences, offers persuasive counterargument against Emerson's "will to virtue."

From this, an easy route to adopt would be to argue that *Moby-Dick* is effectively a satire of Emerson's works. So, we might ask: by testing out the limits of a variation on Emersonian logic and following it to what modern-day readers would consider as irrational, absurd ends, does Melville offer yet another example of his mockery of Transcendental thought, just as he is supposedly wont to do in his later novels, such as *Pierre* or *The Confidence-Man?* The best answer to this question is both yes and no. While it is certainly possible that Melville directly and consciously considered Emerson's ideas while composing *Moby-Dick*, and thus used Ahab as an example in order to lambaste Transcendentalist ideas, the evidence of Melville's sympathies with—and similarities to—Emersonian approaches to electromagnetism reveal an opposite sentiment: a shared interest in finding a language to describe, at least figuratively speaking, how one might be marked for genius, and how one might transmit that genius to others. What Emerson and Melville share is a reliance on

playful incorporations of imagery borrowed from electromagnetic science and pseudoscience. The lightning-rod spine of Emerson's essay shares a commonality with Ahab's "Leyden jar" of his "magnetic life." In imagery such as this, both writers tend to posit the body as a kind of conductor. In this process, they incite inquiry as to how one might characterize or define "genius," as they also imagine a model of how "genius"—or the products of "genius"—might be transferred or conveyed.

Despite their skepticism toward animal magnetism, their invocations of it help them to imagine language as something that, like electromagnetism, could flow between individuals freely, without limits or boundaries, and without conforming to prescribed social hierarchies. Through all this, they similarly value a masculinist ideal of a defiant, self-reliant, fearless, "rod-like," "erect" individual, while at the same time warning us of the dangers of those who might use their powers of manipulation for tyrannical or destructive ends. In these and other ways, the two writers appear more similar than different. This is not to say that *Moby-Dick* shows us that Melville necessarily *agrees* with Emerson on these points, but rather that his fiction helps to illustrate concepts similarly engaged by Emerson, as he imaginatively and empirically tests out such ideas with and against his own experiences as a sailor on a whaling ship. Melville takes up—or takes on—concepts inherited from Emerson and others, and plumbs their depths to see what might emerge or be discovered.

Whether or not Ahab directly acknowledges or even realizes the echoes of Emersonian thought that are apparent in his behaviors, his actions in "The Candles" in fact amply demonstrates his full faith in the maxim later asserted by Emerson: "the best lightning rod for your protection is your own spine." Although Emerson had not

yet composed this line by 1851, the year of the novel's publication, and although there is no conclusive evidence that Melville had come to this idea after having encountered Emerson's ideas, this overlap in the thinking of the two writers at a similar moment in American literary history demonstrates the existence of a larger phenomenon and larger leap in logic occurring in American culture at the time: a merging and conflation of a Franklinian notion of the lightning-rod as *protector* of the body with the idea that the body *itself* could become its own best protector, that the body could somehow *become* a lightning-rod. In this light, by being composed of the right materials, or by simply adopting the right attitude or stance in the face of danger—or, to put it another way, being adequately "rod-like" or "erect"—one could protect oneself from threats of the most sublime nature. This phallocentric construction may sound plausible to some at least in an abstract sense, but when applied to real-life experience, such as that which Melville himself experienced as a sailor on whaling ships on very deadly seas, the idea sounds far less palatable or plausible, and could in fact produce a deadly result.

Further parallels between Emerson and Melville's approaches to electromagnetic corporeality may be found in their considerations of its relation to "place." Just before Emerson offers his aphorism on the lightning rod and the spine, he puts "place" squarely in the center of his discussion:

> There are men who may dare much and will be justified in their daring. But it is because they know they are in their place. As long as I am in

my place, I am safe. 'The best lightning-rod for your protection is your own spine.'

Emerson encourages those who would read his work to be "daring" and not to fear for their safety, as long as they know they are "in their place." Yet being struck by lightning is a matter of being in the wrong place at the right time. At a time when lightning-rod salesmen might instill fear in the hearts of potential customers by making them feel out of place, Emerson finds a different stance more appropriate, by privileging an attitude of self-confidence and self-reliance, and inferring that one's certainty and assuredness of being in the correct place at all times can itself work as a protective shield, a talisman against danger. It is precisely this issue of feeling at place and at home in one's skin and one's abode that Melville would explore further, not only in Moby-Dick, but also in his short story "The Lightning-Rod Man."

Yet it is doubtful that Emerson himself would follow such advice, given a raging thunderstorm outside his Concord abode. Surely, from the safety of inside, it is easy to make grand claims as to how one's force of will might help one to survive direct lightning strike. It is another matter altogether when such thinking is put into practice. It is unclear that Emerson truly feels that one should go without the protection of lightning rods, or for that matter, that he truly believes that protection from lightning is merely a question of mind over matter. But it is also unclear that Emerson offers his unsolicited advice as self-help, as rules that one should follow to achieve self-improvement, or whether he offers them as illustrations of didactic principles. That the seductiveness of these electromagnetic tropes brings him to

employ such vivid imagery in the form of a parable allows him to play with and toy with such ideas without necessarily subscribing to them as gospel truth. For Emerson, impressing upon his readers the importance of self-reliance, independence, and confidence is valued over and above offering a guidebook on the practical concerns of assuring one's survival in a thunderstorm.

Skirting the borders of "faith and fraud," or, alternatively, "parable and life," (to borrow binaries from Rob Wilson), Melville tests out what we might call Emerson's view of electromagnetic corporeality, by examining and exploring how ideas expressed by thinkers such as Emerson or Thoreau would operate if actually put into practice. Melville reminds us of the concreteness of electromagnetic corporeality, as he also reminds us very real dangers that would accompany one's decision to dare to take the risk of an electric shock without taking the precautions of proper insulation or protection. At the same time, he stands up in a decidedly Emersonian way in favor of self-reliance, albeit an extreme form of self-reliance. In this way, Melville might demonstrate the folly and absurdity of over-reliance on technology to ensure one's protection and safety. In *Moby-Dick*, Melville employs an empirical approach to Transcendentalist understandings of electromagnetism and its effects on the body, intrigued by considerations of how it might be possible for the human body to conduct natural electromagnetic energies to its core without injury and then somehow transfer or transmit those energies to others in the form of powerful, magnetic language. Yet, at the same time, his novel works simultaneously as a cautionary tale, as its repeated suggestions of Ahab's madness leads us to question the validity of such pseudoscientific thinking.

As the novel never satisfactorily resolves or answers the question of whether it is primarily an epic tale of heroism featuring Ahab as a modern-day Odysseus gone wrong, or whether it is more akin to a cautionary tale warning us against the dangers of monomaniacal tyranny, we might instead focus on the lines of inquiry that the novel inspires. For example, Melville might lead us to pose questions such as: is it really possible for one to insulate and protect oneself from threat in the form of lightning through sheer willpower, and the adoption of an erect, confident stance, and a feeling that one is not out of "place"? Or, to put it another way that might emphasize the phallocentrism of the construction, can one protect oneself from danger by becoming "rod-like," without somehow relying on someone else's "rod" for protection? Would such an approach be a reasonable one for one to adopt in the face of danger, one we could applaud or look to as a model for the future, or would such an approach be irrational, something to be avoided at all cost? Could a "charged" individual effectively "mesmerize" or "magnetize" others so that they might be led to follow a course against their collective will, as is the case with Ahab's magnetic influence over his crew, and if so, how? Could a strong, self-reliant individual "resist" such magnetic influence?

How we answer such questions might depend largely on the extent to which we understand Ahab as hero, antihero, or villain in the novel. If we sympathize with Ahab's quest to achieve some sense of victory over the forces that would supposedly oppress or subdue him, from God, to nature, to the bourgeois owners of the *Pequod*, to whatever else one might fill in the blank, we might find him to be heroic, or, at the very least, antiheroic. But if we find Ahab completely unsympathetic (an equally

plausible conclusion), as an impossibly mad, misguided, misanthropic cretin who abuses his power as he seeks to exact revenge on a rare and beautiful creature, then we might find him indeed a villain. If we find Ahab at all sympathetic, we might see him as embodying characteristics that Emerson holds dear, and if we do not, we might see him as exactly the sort of tyrannical practitioner of demonology that Emerson might despise. As Melville straddles both possibilities in the novel, it is difficult to determine whether such characterization of Ahab would be more accurately seen as mockery of an Emersonian approach, or one that might be sympathetic to one.

However, further clarity regarding Melville's approach to Emersonian electromagnetic corporeality, and a better understanding of the degree to which he might have us sympathize—or not sympathize—with one like Ahab, who would choose to reject prophylactic measures such as lightning-rods when faced with the threat of severe thunderstorms, can be found through examination of Melville's lesser known short story, "The Lightning-Rod Man." While this story is less widely read today than Melville's more frequently anthologized stories such as "Bartleby, the Scrivener," it was, at least according to Melville scholar Joshua Matthews, a story that "achieve[d]...and long term popular appeal" (57), following its publication in Putnam's in 1854. Matthews attributes this popularity at least in part to the "widespread cultural awareness" of a general public that was well versed in the vocabulary of lightning-rod salesmen, as they would have likely "encountered lightning-rod sales pitches both in person and in print" (57), which may help to explain why the story was, as Hayford observes, "the one Melville tale regularly in print and available to the public throughout the remainder of his lifetime" (qtd. in

Matthews 57). This may be true, but the story would also resonate with the general public in the mid to late nineteenth century as they became increasingly aware of the science of electromagnetism and its related scientific and pseudoscientific metaphors.

In "The Lightning-Rod Man," the unnamed protagonist, living in self-imposed isolation among hilly terrain (presumably a high point in the landscape particularly susceptible to lightning) is assailed by a traveling lightning-rod salesman, who, in the midst of a raging thunderstorm, speaks in tones of serious exclamation, attempts to manipulate the protagonist to purchase a lightning rods by persuading him through methods of fear and intimidation. The salesman informs the owner of the house that he should, for example, stay away from the window and the fireplace, and (absurdly) to stand on a small rug at the center of the room to avoid being struck by the deadly lightning that flashes outside. Issues of "place" become pivotal to the story's action. The homeowner/narrator of the tale is unphased by the dire warnings communicated to him by the salesman. Feeling secure in his home environment, he first listens to the sales pitch, humoring the salesman, and then responds by mocking the salesperson, by sarcastically referring to him as "Jupiter Tonans." What begins as gentle ribbing soon turns to full-fledged ire, as the homeowner/narrator becomes fed up with the notion that he is somehow out of place in his own home, to which he responds by violently removing that which is out of place, namely the salesman and his wares. The story thus ends in a climactic moment, when the salesperson's persistence has so raised the ire of the protagonist that he destroys the rod that is presented to him, and, immediately thereafter summarily ejects the salesperson from the premises.

In "The Lightning-Rod Man," the protagonist's sense of place is very much akin to that of the individual idealized by Emerson in the passage we previously analyzed: he "knows" his place, and he would prefer to be his own best lightning rod rather than succumb to the will of another who might take advantage of him for his own profit. We may have every reason to believe in this story that our sympathies should lie with him, and it is certainly easy to identify with his plight. It is easy to laugh along with the narrator and scoff at the audacity of this would-be "Jupiter Tonans," who would strike fear into the hearts of his potential customers in order to sell his wares. It is likewise easy to rejoice at the narrator's defiance as he seizes the rod from the salesman and snaps it. Yet, if we remember Ahab's rash refusal to deploy the lightning rods that would insulate the *Pequod* from harm, might we not stop to wonder if the narrator's flat rejection of this product of technology in favor of preservation of his own self-reliance and confident sense of place could, as was the case with Ahab, also portend his doom and self-destruction? Surely, the chances of the protagonist's house being struck by lightning at any given moment may seem slim, but living as he does in the highlands of the "Acroceraunian hills," he might indeed face an elevated risk of being struck, in comparison to the average homeowner. Just one lightning strike could instantly turn his house to ashes. Melville leaves it as an open question as to where our sympathies should lie in this matter, essentially playing both sides of the coin: aligning himself with admiration for what we might call an Emersonian brand of self-reliance, while at the same time exploring the limitations and dangers of such self-reliance when taken to extremes.

With our readings of *Moby-Dick* and "The Lightning-Rod Man" in mind, then, we might argue that, despite the persistent contrasts made between Emerson and Melville, and the various kinds of distance that existed between them that has led historians and literary scholars to place them in separate categories, a study of their approaches to electromagnetic corporeality shows that they may be closer in their thinking than it might otherwise appear. Once we realize the remarkable similarities in the epiphanies at which they arrive through their imagery, we might see how they are representative of a collective thought process and discursive turn occurring in antebellum American culture: one that would applaud the body that forgoes insulation and is marked as somehow impervious to the danger of conducting electrical current, while also finding genius in the body able to convey that current to others without harm.

In this sense, the imaginary "Benjamin Franklin" of West's painting, who offers a bare knuckle to the lightning bolt without fear of harm, becomes in midnineteenth century America, Emerson's poet, who boldly persists and overcomes a stammer by conducting the "river of electricity" and saying "it is in me, and shall out," or Ahab, who refuses the rods and stands fearless in his place, despite the flaming masts lit by the electrical charge of St. Elmo's Fire. But as Emerson's poet is more an abstraction than a person, the thought of imminent death resulting from conducting electricity never seems a vital issue: the poet can conduct the "river of electricity" without harm, because the "river" seems purely metaphorical. By contrast, while Ahab is a fictional character and therefore a figment of Melville's imagination, he is nonetheless understood to represent, at least in the context of the novel itself, a very

real and mortal human being. The threat of danger for Ahab is thus a very real one, no doubt inspired by Melville's understanding that life on a ship was particularly dangerous, as it left one especially prone to lightning strike. Because the threat that is posed to Ahab is more real, he seems more courageous than Emerson's poet, and by extension, his decision to go without the lightning rods seems far more truly self-reliant, as he embodies Emerson's claim that "the best lightning rod for your protection is your own spine." But just as Ahab may be more courageous, he is also more foolhardy, as is the narrator of "The Lightning-Rod Man." In putting into practice the notion of becoming one's own best lightning-rod, both Ahab and the narrator of "The Lightning-Rod Man" amply demonstrate the recklessness of such an attitude. Melville's blending of realism and romanticism therefore illustrates how Emerson's "noble" characterizations of his poet/conductor might lead to lethal consequences if they were fully realized in practice.

That Emerson's references to electromagnetism appear well-suited to being understood solely in figurative terms, rather than as earnest scientific or even pseudoscientific descriptions of physical or physiological phenomena, demonstrates that Emerson toys with concepts borrowed from science and pseudoscience in which he does not wholeheartedly believe, if he believes in them at all. Through his deployment of this relatively new vocabulary, he might find vivid imagery to capture ideas of how poetic genius may manifest itself. At the same time, he offers images of electromagnetic corporeality in the form of parabolic abstractions. In these abstractions, Emerson likens language to electromagnetism to playfully suggest the good that could be done by thinking of a model in which one's sensitivity to nature

could translate to beautiful verse. Only on rare occasions (as he does in the essay "Demonology") does he revise that thinking by asserting that mesmeric manipulation of energy was a dark art practiced by fiends and dilettantes who would abuse their own power to achieve their devious purposes.

Melville, for his part, plays with the same concepts and empirically tests them against his own very real experience on the open sea, stressing the devastating results when translated into "real" practice by fiends who might engage in a form of "demonology." But for someone like Melville, whose experiences on ships made him well-versed in the very real dangers of being hit by lightning, he writes about electricity with a tendency to be understood not necessarily in only abstract or allegorical terms, but considered in terms of the very real, very practical concerns that it poses for sailors and others, whose very ship's compasses could be disturbed by changes in electromagnetic forces. For those who make their living on the open seas, having a sense of place in the world is vitally important. Electromagnetic interference with the navigational instruments and compasses held within the ship's binnacle could disturb one's sense of place, and, indeed, make one feel out of place, unable to sail away from rising tempests, unable to return home. Playing with electromagnetic energy in real life, and imagining that one could will oneself to become impervious to its powerful effects, was thus for Melville not only a dangerous proposition, but a lethal one. Yet the tendency of both Emerson and Melville to imagine free flows of energy and fluidity of language and to incorporate such fluidity in their writing, as well as their tendency to value independence and self-reliance over and above obedience to inherited laws and hierarchy that would imprison rather than empower,

made electromagnetic vocabulary attractive. Emerson and Melville through their writing express preference for a model of corporeality by which the individual would, at least in figurative terms, dare to take the full forced shock of powerful energy, rather than live a life of fear, submission, and dependence, even if the consequences of such thought, when translated into very real physical action, could be truly selfdestructive.

CHAPTER 3

THE ELECTRICAL "CHARGE OF THE SOUL": WHITMAN, AUTOMATA, AND THE SUPERCONDUCTIVE BODY

Is it a fact — or have I dreamed it — that, by means of electricity, the world of matter has become a great nerve, vibrating thousands of miles in a breathless point of time? —Nathaniel Hawthorne, from The House of Seven Gables

What is marvellous? what is unlikely? what is impossible or baseless or vague? after you have once just opened the space of a peachpit and given audience to far and near and to the sunset and had all things enter with electric swiftness softly and duly without confusion or jostling or jam.

-Walt Whitman, from the Preface to Leaves of Grass (1855)

In May of 1846, young Walt Whitman was presented with the rare opportunity to interview the great showman P. T. Barnum. Filled with modern "marvels," Barnum's famous "American Museum" opened in Whitman's own neighborhood—right at the intersection of Broadway and Ann Street in New York City. Whitman often visited this location, presumably walking by the museum on his way between work and home¹². In one brief, unattributed article, published on May 25, 1846 in the

¹² As Whitman scholar Brett Barney notes, not only did Whitman make frequent visits to the neighborhood, but there is also documentary evidence that Whitman at least twice visited Barnum's museum, as he made note of it in newspaper articles to that effect (29)

Brooklyn Daily Eagle, he wrote the following lines to record his encounter with Barnum, who had just returned from a whirlwind tour of Europe:

[Barnum] told us all about his tour through all the capitals of Europe, and his intercourse with the kings, queens, and big bugs. We asked him if anything he saw there made him love Yankeedom any less. His gray eyes flashed: "My God:" said he, "no! not a bit of it: Why, sir, you can't imagine the difference, —There everything is frozen—kings and things—formal, but absolutely *frozen;* here it is *life*. Here it is freedom, and here are men." A whole book may be written on that little speech of Barnum's.

Barnum makes an analogy between "formality" and "frozenness," suggesting that the effect of monarchical rule on high European culture was to engender a level of decorum of behavior and mannerism that, through its coldness, stiffness, and frozenness, seemed antithetical to life itself. Barnum depicts the European aristocrats and royals as inanimate and dead—no longer human beings, but rather "things." "Life," on the other hand, is equated or associated with "freedom," and a specifically "American" brand of freedom at that. In Barnum's vision, it is only in this land of freedom that true "men" reside; to not be endowed with such freedom as that which exists in America renders a human being not truly a "man," but rather a "thing." That Barnum's anecdote was the only part of the interview that made the cut to be included in his short article underscores Whitman's fascination with it, a fascination so intense

that it might inspire his editorial comment that "a whole book may be written" on it. But why exactly was Barnum's brief utterance so fascinating, and how might speculations on Whitman's fascination with it help to shed light on his later thinking and literary production?

To begin to answer this question, we might first consider how Barnum's binary opposition of "frozenness" and "freedom,"—or, even more importantly, "frozenness" and "life"—accrete further meaning and significance, especially when we consider the automata that formed such a significant part of the collection in his own museum. His automata-mechanically animated clockwork dolls- attracted, excited, and exhibitated audiences precisely for their ability to escape the "frozenness" of their static doll-like condition. The automata displayed in these exhibits miraculously presented the semblance of life through their mechanical animation, their inner workings and cogs seamlessly hidden from view for an audience of enchanted onlookers. Such automata, often dressed in the attire of royalty and other "big bugs," yet sometimes possessing the faces of apes or other animals—or, even more disturbingly, grotesque racial caricatures of Africans or other non-Europeans—would often become focal points of some of Barnum's most attractive and attention-getting exhibits. In these exhibits, the deadness, "thing-ness," frozenness, or general lack of humanity of European royalty was mocked and made the object of derision, ironically, by giving these inanimate dolls the appearance of animation or "life." We may wonder, however, if such irony was lost on the showman himself. Given his damning assessment of the European aristocracy, could it be that was he in on this cruel and unfortunate "joke," or was he indifferent to the ethics that they suggested? Such a

"joke" would play upon racial stereotypes by associating the state of being "animated" with being more like an animal than a "man," thereby giving credence to beliefs that animals—and by extension, racially and ethnically othered human beings—shared more in common with soulless automata than they did "true men." The "humor" of this is difficult to parse and comprehend from our modern standpoint, however. Are we to understand that these aristocratic automata possessing faces marked by racial caricature were humorous because they were animated and imbued with an overabundance of life, thus ironically the antithesis of the "frozenness" of the European aristocracy? Or are we meant to laugh because these automata, like the aristocrats, only display the *semblance* or appearance of life without being truly alive, autonomous, or "free" in the sense that Barnum identifies? Given that Barnum had acquired many of these automata from the very European aristocrats he would elsewhere criticize, we may wonder to what degree their "humor" was self-deprecating and to what degree the "joke" was on them.

One of the reasons that the elaborately designed and crafted automata of Barnum and others became marvels—marvels that were increasingly shown, displayed, and collected in the mid-19th century—was precisely their seamless blurring of the animate and the inanimate. The "lifelike" appearance and movements of these mechanized dolls, moving without strings as if by their own volition, wowed and fascinated audiences precisely because this phenomenon brought to "life" otherwise inanimate objects. Yet, given significant speculation in this era that inorganic artificial materials were not the only objects that could be somehow "brought to life," this was not merely a matter of advanced puppetry or progress

toward robotics. The bodies of dead animals, preserved via taxidermy, were also made to move once again, sometimes in ways that would have them perform acts that never would have seemed possible when they were alive. For example, through the insertion of mechanical clockwork inside their hollowed carcasses, squirrels or other small rodents could be brought to perform acrobatics, play cards, or dressed up to perform other "human" activities. Birds, removed of their internal organs and other remnants of any sentient existence, could be brought to flap their wings and "sing" again, through the craftsmanship of skilled artisans who would render them once again "animate," if not sentient. Part of the appeal of these Victorian automata was their ability to bring audiences to marvel at the craftsmanship that brought them into being, craftsmanship so well-executed that it might bring one to at least momentarily suspend disbelief and imagine that a miraculous animation or re-animation had occurred, truly bringing to life that which would be otherwise inanimate or dead.

Yet automata did not only bring audiences to suspend disbelief—in other words, to forget temporarily what was "true" or "real"—while observing a spectacle that, sometimes with striking verisimilitude, made the artificial seem indeed real, or the inanimate seem indeed animate. Rather, the appeal of automata drew upon a sincere belief held by many: that through modern scientific means, one could truly make dead or inanimate objects come alive. Buttressing an audience's already held beliefs, demonstrations of dead birds that could fly or sing—or dead squirrels who could play cards—further opened up the imagination of the public to the possibility and potential for science not only to reanimate dead flesh, but to make the dead once again quick. As Benjamin Reiss notes in his scholarship on Barnum, automata, and

race, for example, while "serious Enlightenment thinkers scoffed at the idea that the artificial and the natural were indistinguishable, exhibitors of automata began to erode the distinction," to the point where they would "mystify even the basic distinction between the real and the fake" (118). As exhibits such as Barnum's became more prevalent during the nineteenth century, and more and more audiences were introduced to increasingly "lifelike" automata, public belief in the possibility of artificially producing a being that was, at least in every outward aspect, "living," understandably grew.

Such thinking emerged with a basis in scientific discovery, flourishing alongside the development of electrical theory. This came to light most famously with the experimentation of Luigi Galvani and Alessandro Volta in the late 18th century, as discussed in the first chapter. Rejecting Galvani's hypothesis that disembodied frog's legs could themselves be the source of "animal electricity" that made them twitch during his experimentation, Volta demonstrated that he could replicate the twitching of the frog's legs by applying two pieces of metal that could create an electrical current that would pass through the legs, which had been bathed in a brine solution. Electricity would thereby be conducted through the nerve and muscle tissue of the leg, as it flowed from the connection of one metal point to another, animating the legs and bringing them to convulse. Such discovery would soon thereafter lead to his invention of what became known as the Voltaic pile, an early battery.

Not only was Volta's discovery a breakthrough for electrical and electromagnetic science that paved the way for battery-powered mechanical inventions, but it also had a remarkable impact on understandings of exactly how

electricity might be manipulated in order to animate dead matter, inspiring the possibility that the scientific application of electricity could allow humans to bring about such reanimation at will. Yet, if this were so, the question remained: is being animate the same as being "alive"? Could it be? If scientists could reanimate flesh, could they create or recreate a living creature composed of dead flesh? What does it mean to be alive, if we can make the non-living somehow live again through the application of the vital force of electrical current? And, if all this is possible, is all that separates the inanimate or non-living object from the animate or living creature simply the degree to which electrical current runs through its body?

Questions such as those posed above did much to spark both the popular and literary imagination during the Romantic period in the early decades of the nineteenth century. Such questions were most famously explored and imagined by Mary Shelley in her seminal 1818 novel *Frankenstein*. Even if it could only be brought to exist in Shelley's mind, Frankenstein's monster perfectly exemplified what might happen if we could straddle boundaries between the animate and inanimate, collapsing such binaries. Through the lens that Shelley offers, we might begin to imagine how a human being could, through scientific means, construct or reconstruct a living, animated creature from an assortment of dead or inanimate parts. And, given this possibility, we might ask ourselves: are we, too, simply animated assemblages of parts? If so, is death really an end or only a temporary state of being inanimate? And if death is not necessarily an end to our potential animation, could we be reanimated once more through application of the right amount of vital force? Moreover, if

electrical or electromagnetic force could be manipulated to create or recreate "life," could not our own health be regulated by manipulation of such forces?

Audiences of science fiction such as *Frankenstein* could be easily inspired to imagine such fiction becoming reality, if they did not already believe that such reality existed. This proves especially true when we consider how their readings might have been further informed by the widely practiced pseudoscience of animal magnetism, or medical electricity, explored in our previous chapters. Taken in this light, the novel becomes not merely a hyperbolic, fantastical inculcation of a moral lesson, an allegory that would have us lament the results of what happens when human beings lose control over the technology they create. Rather it becomes a meditation on how humans might responsibly handle the very real possibility that harnessing electrical power and applying it to dead flesh—power that might render one a "modern Prometheus"— could very well result in creating, or re-creating, life.

Given the prevalence of this speculative and imaginative thinking in the early to mid-nineteenth century, we may return to consideration of how Barnum's disturbing and strange binary of "frozenness" and "life" may have sparked the imagination and interest of young Walt Whitman, who, while only mustering a few lines on his encounter, suggested the potentiality of "a whole book" written on Barnum's "little speech." While it would be folly to think that this encounter alone inspired what would become Whitman's first book—namely, the 1855 edition of *Leaves of Grass*—we might yet reflect upon how elements of the prose and poetry found in his slim edition may explore and explode Barnum's binaries and formulations, even if it was not composed in direct response to them. At the same

time, we might see how in an America increasingly accustomed to and familiar with mesmerists, medical electricians, and automata, Whitman plays upon both scientific and pseudoscientific understandings of corporeal electromagnetism as he works to collapse the binaries and dualism that would understand the inanimate and the animate, or the body and the soul, as distinct and discrete categories.

Whitman employs electrical tropes in his writing to vividly capture and imagine a model of corporeality by which a human body might demonstrate its own vitality by conducting electrical or electromagnetic energies to itself. In this way, his work would resemble that of Emerson or Melville. But in Whitman's case, even more so than with Melville's, we begin to lose the sense that this is only linguistic play—not naturalistic accounting of very real and observable phenomena. Like the exhibitors of automata that would mystify audiences as they seamlessly blurred dualistic distinctions between mind and matter, the animate and the inanimate, the live and the dead, or the real and the fake, Whitman uses language to blur such distinctions. As we shall see, through this linguistic process he gives birth to a dead metaphor: the "body electric."

Whitman's attempted resistance to dualism was a feat that had eluded many of his predecessors, most notably Emerson, who courted and toyed with such ideas while still often subscribing to a largely Swedenborgian form of dualism. In fact, while in some passages of his essays Emerson appears to reject or resist dualistic thinking, in others he seems wholly to welcome and affirm it. He does this quite explicitly, for example, in his 1841 essay "Compensation," when he observes that "an inevitable dualism bisects nature, so that each thing is a half, and suggests another thing to make

it whole; as spirit, matter; man, woman; odd, even; subjective, objective; in, out; upper, under; motion, rest; yea, nay" (149). For Emerson (at least in this instance), dualism was not only a fact of life but was also an "inevitable" one.

Such binary thinking must have been puzzling to Whitman, especially considering the implicit (if not explicit) gender norming of Emerson's assertion. More puzzling still is Emerson's strict adherence to and advocacy for binary oppositions, that counters the unification and wholeness that he would champion elsewhere in his work. Emerson's hypothesis, that would have us think that each human being is only a "half" searching for its other (read opposite-sexed) "half" in order to become "whole," is in direct contradiction with his assertions made in "The American Scholar," for example. Omitting any suggestion that a man is only a "half" drawn inevitably to his other, opposite-sexed half, Emerson instead claims that society, in its specialization of professions, has reduced men merely to collections of *parts*, parts that could, conceivably, become whole again through revisions of one's relationship to nature that would understand man as a reflection of nature rather than an entity altogether separate from it. According to Emerson's argument, one could somehow return to or reclaim the state of being a "whole man," simply through adopting an attitude that would resist the "divided or social state" and instead appreciate and understand that man and nature "proceed from one root" and that "[nature's] beauty is the beauty of [man's] own mind." By denying the differences between man and nature, or between individuals and each other, we might achieve a more "whole," allencompassing understanding of nature and ourselves, rather than the narrowly defined and specialized role that culture would assign and impart.
Emerson further implies that capitalistic division of labor has reduced men from what would otherwise be their "whole" existence, and has instead transformed them into walking assemblages of parts: "strut[ting] about [like] so many walking monsters, — a good finger, a neck, a stomach, an elbow, but never a man." Limiting a man to a narrow role, profession, and function reduces the importance or significance of that man's body and mind only to the part that he is required to use, so that the handyman is reduced, for example, to a good hand. But the "monstrous" imagery that Emerson conjures in his depiction of the partitioned man also strongly recalls the animated, stitched-together parts of the famous monster from Shelley's Frankenstein. Building on this image, we might envision America not as a place peopled by free men (as was the case in Barnum's anecdote), but rather a place peopled by walking, breathing automata—almost zombies rather than human beings. Such a "monstrous" existence could presumably be undone by adopting a larger view that would understand man and nature to be part and parcel of the same entity—essentially, that they are the self-same entity. But if nature is "whole," why then would any man not also be already "whole"? And why would he need to seek his other "half"— or his other parts—to achieve "wholeness"? It is a philosophical conundrum that Emerson never fully reconciles or resolves, and one that Whitman is drawn to tackle.

Whereas in "The Poet" Emerson deployed electromagnetic tropes vividly to illustrate how his ideal poet might conduct the energies of nature to his body in ways that might reveal an inherent affinity or sameness between his "poet" and the natural forces that he might conduct, his application of electrical or electromagnetic theory in "Compensation" may lead us to think otherwise. In "Compensation," Emerson

specifically identifies "electricity, galvanism, and chemical affinity" as examples that would bolster his firmly dualistic approach. Illustrating his claim that opposite halves attract, he argues further that if you "superinduce magnetism at one end of a needle, the opposite magnetism takes place at the other end" (149). From this concept he draws an analogy to human behaviors and characteristics, moving to assert that "the same dualism underlies the nature and condition of man" (149). Extensions of the dualistic logic of "Compensation" to "The Poet" might show that the poet's conduction of natural energies to his person is not reflective of his inherent sameness with that natural energy, but rather his difference from it. Keeping Emerson's "needle" imagery in mind, we may see how, in the model offered in "The Poet," the body would be rendered a vessel and conduit of the energy or force that penetrates it, while itself being a discrete, distinct, and oppositely charged entity, separate from Nature. As we will remember, not just anybody could withstand conducting electromagnetic force "to the quick" and transforming it to verse; it would take a person of very special genius, composed of very special materials-in short, a superconductive body—to perform this task effectively. Yet, keeping "The American Scholar" in mind, could we not offer the retort that the handyman could return to a state of wholeness if only he saw himself not as society does, as one good hand, but rather as a whole being, reflected in the wholeness of nature of which he was an inseparable part? But if man and nature, body and mind, body and soul, and mind and matter were all truly one in the same entity, one may conclude that anybody—any *body*—should have the potential to be the kind of poet that Emerson would imagine or idealize. In other words, there would be no need for "genius." That this seems not so

is further evidence of the inherent dualism—and contradictions— of Emerson's formulation.

In the very first lines of the very first poem that appears in the 1855 edition of Leaves of Grass, the ambitious "Song of Myself," Whitman takes this sort of Emersonian dualism and contradiction head on: "I celebrate myself,/ and what I assume you shall assume,/ For every atom belonging to me as good belongs to you" (25). Right away, Whitman's speaker drops any pretense that there exists some essential difference between poet and reader that might prevent the reader from switching places and being precisely the singer who sings a body that is his or her own. Right away, it is established that every atom that belongs to the singer might "as good" belong to the singer's audience. Despite the fact that the poem ostensibly concerns "I," the use of the second person "you" immediately extends a gesture toward developing a deeply personal connection and intimacy with the audience, a connection that might omnisciently transcend time and space. Confidently reassuring each audience member that he or she shares a common atomic makeup, the speaker announces his affinity with the reader, despite lacking the benefit of knowing exactly who is reading, or, moreover, what age, gender, race, or other identifying markers that reader might possess. This initial use of the second person "you" would democratize the reading experience by stressing the common bond and origin of all humans.

Such assurance of affinity, sameness, and homogeneity would stand in stark opposition to the dualistic, gender normative approach suggested by Emerson in "Compensation." Whereas Emerson would claim that for every abundance there must be some lack, for every affinity there is repulsion, or "every excess causes a defect,"

Whitman's approach in "Song of Myself" would build abundance atop abundance, deny the necessity of opposites to attract, and would exalt the notion that excess breeds excess. And, certainly, "excess" is an apt word to characterize both the stylistic and thematic qualities of Whitman's poetry in *Leaves of Grass*. With his extensive cataloguing and his lines so long that they crowd the margins and almost spill off the page, Whitman amply demonstrates that he cherishes and relishes his poem's excessiveness, rather than worrying that it might be naturally compensated by some corresponding defect. And while Emerson would insist on ascribing positive and negative polarities to sexual difference, arguing for example that "there is somewhat that resembles...the man and woman, in a single needle of the pine" (thereby suggesting that the electromagnetic polarity found in nature mirrors a necessity for male and female characteristics to be naturally and necessarily paired in every object found in nature), Whitman's insistence that "every atom belonging to [the speaker] as good belongs to you" emphasizes and celebrates an inherent sameness between speaker and audience, a sameness that might cancel differences in age, gender, sex, or race, or erase any immediately apparent outward bodily difference. Yet the speaker's invitation would proffer not only a shared body, but a shared mind, a shared consciousness. By extending an offer to share mind, spirit, and consciousness with the audience, the speaker might further erase any other perceived difference, so that, at least in the shared space of the poem, our minds and bodies might unite and merge, communing.

The revelation that Whitman collapses binaries and dualistic thinking in *Leaves of Grass* is truly nothing revolutionary. Neither would it be revolutionary to

argue that Whitman's attempt to resist dualism is also often met with failure and contradiction. Whitman scholar Stephen John Mack offers a succinct summary of Whitman's simultaneous resistance to and embrace of dualism:

> ...we should find in Whitman a poet who is indifferent to one of the fundamental truth claims of nearly every religion from which he would borrow: "dualism," or the ontological distinction between mind and spirit. Still, dualism seems to be everywhere in Whitman's poetry; paradoxically, it even appears to be central to his entire architectural vision of democratic selfhood. (23)

Much like Emerson, Whitman does not only often appear inconsistent in the claims and assertions he makes, but rather he revels (albeit sometimes through his speakers) in his contradictions. Even more revealingly, he revels in his *indifference* to those contradictions. The speaker of "Song of Myself," for example, not only casually admits to his (or her) contradictions, but boldly proclaims and defends them: "Do I contradict myself?/Very well then....I contradict myself;/I am large....I contain multitudes" (85). But the indifference that Whitman's speaker shows toward these contradictions is less the byproduct of apathy than it is the result of a concerted effort to disturb notions of stable subjectivity or personhood. The idea of a self "contain[ing] multitudes" is crucial to understanding an "T" that is less a solid stationary object than a fluid, moving force, a personhood that more closely resembles shifting sands or swirling ether than it does a defined, static body. Whitman's fluid,

multitudinous self cannot be reduced to a single definition or a single binary, a single opposition of a physical "self" or "body" with an ethereal or metaphysical "soul" or "spirit." With this ever-shifting subjectivity in mind, we may find upon closer inspection that Whitman's "dualism" may not be so dualistic after all.

As we read further in "Song of Myself," we soon find that the intimate and democratizing second person "you" of the first few lines of the poem quickly begins to shift and fluidly reshape itself. Not long after we might be led to believe that the "you" of the first few lines refers to us, the readers, we find that the speaker uses "you" to refer once again to the self, or, at the very least, an alternate version or vision of the self. We might alternatively call this version of the self the "soul," a frequent object of address and apostrophe in Whitman's work, as may be found, for example, in the poem's later lines: "I believe in you my soul....the other I am must not abase itself to you,/And you must not be abased to the other" (28). In this instance, we are presented with an image of the speaker as split into separate entities. Critics have often interpreted these separate entities dualistically, using them to demonstrate the inherent dualism that would separate body and soul—or as Mack puts it, the "mind and spirit"—into separate and discrete categories.

Encountering this shifting "you" for the first time, it is as if we are suddenly placed in an awkward moment where we learn that the person smiling and waving at us from across a crowded room is actually waving to a friend, or, more appropriately in this case, to a mirror on the wall. Have we been duped? Was the "you" of the first few lines actually just another reference to the "soul" that is "invited" while the speaker "loafes" and "observes a spear of summer grass"? Given the contradiction

between the "you" of the first few lines and this "you," which may be understood as an alternate version of "I," it might be tempting then to redact our initial understanding of the use of "you" as democratizing, and instead consider "Song of Myself" as a sort of pretentious, self-referential form of navel-gazing. But, as Mack goes on to argue:

Whitman's soul is nothing like an ethereal entity at all; it is a naturalistic conception of consciousness. It is...an elaboration of his conception of natural, democratic selfhood. The particular role that it plays in Whitman's poetry may dramatize its fundamentally social—and democratic—origins (24)

And, in fact, with Mack's argument in mind, we may see that Whitman's "you," in addition to being "the soul" or an alternate version of the "self" or "I," is neither transcendent of nor subservient to the self; instead, there is no hierarchy between the two identities. Rather, they represent fluid instantiations of each other, instantiations not limited solely to one or the other possibility but which, as we find as we proceed through the poem, could also presumably exchange positions with other auxiliary instantiations of the self, including the "you" which is actually us, Whitman's readers. In other words, rather than limiting selfhood to one half of a binary of "subjective and objective," "male and female," or "yea and nay," as Emerson would have us do in "Compensation," Whitman's multitudinous speaker or "self" shifts fluidly between different subjectivities and objectivities without advance notice or warning, acting as a larger, broader, more multi-layered self that encompasses far more possibilities and levels of consciousness than mere binary opposition would allow.

Given the constantly moving and shifting objectivities and subjectivities of Whitman's speaker in "Song of Myself," we ought not be surprised when the "you" of the poem suddenly shifts again, for example, from reference to the "soul," to reference to a third person with whom we have no prior knowledge or contact: a lover who is both object and giver of ardent attention and physical intimacy. We may find this, for example, in these lines: "You settled your head athwart my hips and gently turned over upon me,/And parted the shirt from my bosom bone, and plunged your tongue to my barestript heart,/ And reached till you felt my beard, and reached till you held my feet" (29). Suddenly the speaker, complete with "beard," is marked specifically as male, deferring the possibility of female subjectivity offered by a later confident assertion that says as if with intimate personal knowledge that "it is as great to be a woman as to be a man" (44). Suddenly the "you" of prior stanzas transforms to a lover engaged in unmistakably erotic interaction with the speaker, and we are left as unwitting and involuntary voyeurs to a scene of raw and naked sensual and sexual expression. Could we too somehow be participants or objects of this attention? Stumbling upon these lines, it is as if we are accidentally walking in on a couple so engrossed with each other that they are not aware of our presence. This use of "you" might place us as outsiders, far removed from the warm, intimate, inviting address we encountered in the first few lines of the poem.

Yet, not long after this scene ends, the speaker asks casually, to no one in particular, "What do you think has become of the old men?" (30). Who is this "you,"

now? Is the speaker now returning to speak to us, the audience? Is the speaker speaking to him/herself, or to another version of him/herself, a.k.a. the "soul"? Or is the speaker speaking to the lover we met in the scene not long ago? All three? Someone else? None of these? Because of the shifting subjectivity of the speaker, and the shifting objects of his/her address, it is truly difficult to determine exactly to whom the question is addressed. Yet again this indifference toward traditional, stable understandings of personhood, or the binary of subject/object, is less the result of idle apathy or sloppiness (although the "loafing" of Whitman's speaker may indeed be suggestive of both) and more the product of a calculated methodology that would expand definitions of subjectivity and objectivity. Through this methodology, these multifarious, multitudinous subjectivities and objectivities might lead us away from the pitfalls and the limitations of dualistic binary oppositions, and instead lead us to reflect more fluidly and expansively upon the subjectivity and objectivity of others, as well as ourselves—in short, to help us to think in more empathetic or intersubjective terms.

Understood in this light, Whitman's language inspires us to imagine what might be possible if we could truly inhabit a fluid consciousness or identity, one that could move and shift between forms, between people, between genders, or between races, without limitation or obstacle. Possessing a consciousness that moves fluidly like whatever force might animate us into life and consciousness in the first place—we might find that suddenly any solidified, hard fast identities that we might otherwise latch on to could slip away fleetingly, just out of our grasp, and impossible to capture or hold captive. Following this train of thought, we may begin to imagine corporeality

free from physical limitations, free from limitations of perspective, free from the "frozenness" that would otherwise limit our thinking or bring us to think of ourselves as somehow better or worthier than others because of our relative physical appearance or social condition. In essence, we may begin to imagine a nearly if not completely ideal and omniscient form of embodiment or consciousness, without necessarily becoming what has been constructed or known as "God." As Whitman's speaker puts it in "Song of Myself," "...the soul is not more than the body,/ And I have said that the body is not more than the soul,/ and nothing, not God, is greater to one than one's-self is" (82). Through Whitman's construction of corporeality, identity, and subjectivity, one could inhabit a God-like perspective without understanding God as transcendent.

Yet such an ideal and omniscient form of consciousness—or, to put it another way, such a fluid, shifting form of corporeality—would also be nearly if not completely impossible to replicate or experience. While such expansive thought might be effective in democratizing our thinking and improving our ability to empathize with alternate perspectives from our own, our very real physical limitations would prevent us from truly inhabiting those perspectives, those bodies, or those sensibilities. We might simulate or imagine an escape from the limitations that might be imposed by solid, immovable identities, or unshakable firm binaries, and through this simulation or imagination, we might feel more liberated, or might be more moved toward liberation of others. But, aside from possibly expanding our ability to empathize with the situations or perspectives of others, the notion of fully inhabiting the body of another—or residing within consciousness of another—was for Whitman, and is for us now, something that can only be approximated or virtually experienced.

Like Barnum's automata, Whitman's shifting subjectivity and objectivity is nothing but an artificial representation or simulation of reality, not, as far as we know, reality itself. Just as Barnum's automata gave their audience the *impression* of having autonomous movement and consciousness by offering a "lifelike" appearance, so too would Whitman's shifting subjectivities and objectivities almost magically give the impression to his audience that something which does not now exist in real life could in fact *exist*. In this way, Whitman's poetry has something in common with virtual reality, or science fiction.

In a world where we might be deceived into thinking that that which cannot exist could exist, truly anything is possible. For example, if we could disrupt or resist the binary that would place death and life in opposition, and if we could imagine that there were possible instantiations of existence other than life (the presence of existence), as opposed to death (the lack of existence), then we could be led to believe in some form of immortality, an in-betweenness or otherwise purgatorial existence somewhere between death and life as we know it. In a world where once-expired creatures may once again display signs of life, or where the body parts of formerly living creatures are brought to move and live again, we may suspend disbelief and bring ourselves to imagine or even believe that such an existence could indeed be possible. If electricity could reanimate dead flesh, then we could find life after death. But what if living human beings could somehow attain the "fluid" characteristics of electricity? What if we could not only conduct electricity but could in fact be electricity itself? What if we already are? Then we would not be limited to one "frozen" form of embodiment, one "frozen" form of subjectivity. Then we would not

be limited by the physical constraints of time or space. Then we could move almost instantly and effortlessly between identities and subjectivities, as we moved between points or bodies. In essence, in a world where this was possible, we could become immortal, even omniscient.

Whitman would have us precisely imagine such impossible possibilities when his speaker asks the question "What do you think has become of the young and old men?" or "...what do you think has become of the women and children?" (30) The speaker's answer is telling:

> They are alive and well somewhere;/ The smallest sprout shows there is really no death,/ And if ever there was it led forward life, and does not wait at the end to arrest it,/ And ceased the moment life appeared./All goes onward and outward....and nothing collapses,/And to die is different from what any one supposed, and luckier. (30)

A traditional Judeo-Christian reading of this passage might have us believe that these lines are suggestive of an afterlife in which one might be rewarded with heaven. Thus, death would be far "luckier" than what anyone might have otherwise supposed. But upon further examination, we may find another possibility, one that takes a hypothetical, impossible phenomenon, namely, life after death, and presents it as if it were literally true. It is as if the transition from life to death were truly not a change in the status of one's existence but rather a continuation that would go "onward and outward." In this sense, life would not end and become something else (the

"afterlife"). Rather, life would in fact not end—consciousness would not stop when the brain ceased to function but rather would simply continue, just shifting position to a different location or form of embodiment. In short, the passage proffers the hypothesis that as life is never "arrested" by death, all who die are in fact "alive and well somewhere."

If we believe further that electricity could reanimate the dead and make them once again living, or, moreover, if we believe that in death we could somehow become the electricity or animating force that could in turn animate or reanimate others, then death is not an end, but actually a beginning, or a continuation, of life. Just as Shelley's creation of Frankenstein's monster might help us not only to imagine but believe that dead flesh could be made once again animated and living, Whitman's speaker, like one who claims to have experienced death and been brought back to life, can help us not only to imagine but also to believe that an existence that transcends or outlives death is in fact possible:

> Has any one supposed it lucky to be born?/ I hasten to inform him or her it is just as lucky to die, and I know it./ I pass death with the dying, and birth with the new-washed babe/....and am not contained between my hat and boots,/ and peruse manifold objects, no two alike, and every one good,/ The earth good, and the stars good, and their adjuncts all good. (30-1)

Given the speaker's fluid and shifting identity and subjectivity, he/she is able to be present in the consciousness of the dying at the moment of death, and is able also to be present in the consciousness of the newborn at the moment of birth. And, while the speaker's consciousness may in one instance reside in a body ravished and stimulated for the purposes of sexual and sensual pleasures, it may in yet another instance reside in a form of corporeality that lacks skin, nerves, bones, or any body as we know it, "not contained between [his/her] hat and boots." Not limited by the confines of mortal life, or the body that would be the vessel that would supposedly contain life, the consciousness of Whitman's speaker furthermore becomes able to escape the spatial limitations of a terrestrial perspective, able somehow to draw back his or her panorama to such a removed vantage point that he or she can observe and evaluate the entire galaxy in which the Earth resides. In this way, the speaker/audience may "see" from the perspective of an astronaut, without ever having set foot out of Earth's orbit, or without ever having prior access to images taken from that perspective, in a time when space travel was still only something that one could imagine.

When, in his introduction to *Leaves of Grass*, Whitman makes his first explicit reference to the term "electric," we may stand up and take notice of how his understanding of electricity as "fluid" might have influenced his thinking about subjectivity, personhood, and corporeality in similarly "fluid" terms. It is important to note that his use of "electric" was made in a time which, as his biographer Jerome Loving tells us, "electric" and "electricity" were not "household words" (202). If we accept Loving's claim as true, then we may understand that despite prior use of the term in poetry and other literature, and despite that over a century had passed between

Franklin's famous kite experiment and the publication of *Leaves of Grass*, the concept of "electricity" was not fully understood or even known by the majority of the general public in 1855. To use such a term in passing would not be clichéd, then, rather it would still seem novel. And, in its novelty, it would conjure up and build upon the previous understandings of electricity that we have thus far discussed, some of which were based in demonstrated scientific truth, some based in speculation, misunderstanding, or imagination. Whitman employs the term "electric" in this way:

What is marvellous? what is unlikely? what is impossible or baseless or vague? after you have once just opened the space of a peachpit and given audience to far and near and to the sunset and had all things enter with electric swiftness softly and duly without confusion or jostling or jam. (10)

In this passage, Whitman's "you" refers to the poet, and more specifically, the "eyesight" of the poet. Whitman scholar Matthew Ward Miller aptly observes that the "peachpit" of this passage is used as a metaphor for the poet's eye, being itself of peachpit shape and size (132). Miller goes on to interpret the passage by arguing that "the eye-shaped pit of a peach...immediately dilates to encompass all things 'far and near,' which enter poetic consciousness 'with electric swiftness'" (132).

Yet what Miller may miss is the possibility that the "peachpit" of this passage could serve either as subject or object of the poet's eyesight, or moreover, of his or her "poetic consciousness." In other words, while we may understand the peachpit as the portal through which the poet allows the "sunset" or other distant vistas to enter his consciousness, we may also understand it as the small, petty object that the poet "opens" to new potentialities in verse, under his or her watchful gaze. While the eye "opens" and dilates to let the light of experience enter, the poet likewise dilates and "opens" the objects of his gaze in imbuing them with life and rendering them in verse. Earlier in the paragraph, Whitman describes the poet as a "seer," in a way that resonates strongly with the writings of Emerson and Thoreau, and argues further that "if [the poet] breathes into any thing that was before thought small it dilate with the grandeur and life of the universe." From this we may understand that Whitman sees the poet as one whose work might "breathe" life into even the smallest object, or conversely, whose work cannot ignore or omit the "grandeur and life" that bursts forth onwardly and outwardly from even the most petty or trivial item.

The echoes of Emerson are apparent in Whitman's formulations, and we can imagine how in some ways this passage (and his introduction to *Leaves of Grass* in general) develops and revises Emerson's vision of what a poet is and what it should be. From our previous chapter we will remember how in "The Poet," Emerson imagines the ideal poet as a kind of "conductor" of the "river of electricity," who, in effectively describing or capturing the image of a sunset, for example, is able to conduct the energies of the universe to the central point of his body and then translate that energy back into lines of verse. However, Emerson infers that not every man has this power, that some are more conductive than others or otherwise better able to translate the energies of the universe into words and speech. Emerson goes further to suggest from this that a certain poetic "genius" is necessary to become the ideal poet

he describes. He would later develop this idea further in his essay "Natural Aristocracy" by comparing the man who possesses artistic or poetic genius to a rightful monarch:

> what is so-called in strictness, —the power to affect the Imagination, as possessed by the orator, the poet, the novelist, or the artist, — has a royal right in all possessions and privileges, being itself representative and accepted by all men as their delegate.

Yet in an age when phrenology would help to lend pseudoscientific credence to racist or sexist bigotry, to justification of slavery, and to eugenics, such stratification of human beings into castes based on their physical attributes was a dangerous and deadly notion indeed. Whitman was more than aware of this danger, having himself attended slave auctions during his time spent in New Orleans. There he witnessed how bodies were both devalued and dehumanized while their parts were reduced to monetary value, and contemplated how this practice was justified and defended by those who would feel they possessed a natural and inherent physical or intellectual superiority to others on the basis of racializing difference. It was precisely this phenomenon which he would later critique and undermine in his poem "I Sing the Body Electric," which was initially, as biographer Jerome Loving reminds us, "tentatively called 'Slaves'" (198).

Sensitive to avoidance of such social stratification, then, Whitman revises Emerson's construct by actively resisting a hierarchy that would render some human

beings geniuses, and others lacking in genius. In Whitman's view, poets are not somehow better than their fellow men, but rather they simply see what others don't see. It is not a matter of what poets *can* do, but rather what they "do." We find this, for example, in the following line from his introduction to *Leaves of Grass*: "[the poet] is complete in himself...the others are as good as he, only he sees it and they do not" (9). Whether all men (and women) are similarly equipped to see what the poet sees, or they are not, is not clear. The point is simply that the others *don't* see, irrespective of whether or not they *can* see. This subtle yet telling difference reflects the democratizing approach that underlies Whitman's methodology: all are presented as being as good as each other, despite how they may or may not be differently *equipped*. This difference of equipment becomes particularly significant when we consider how Whitman's shifting subjectivities might help to resist any preconceived notions that the poet, or the audience of poetry, must necessarily be male, or, moreover, that that the poet, or the audience of poetry, must necessarily be white.

Understood in this light, Whitman's expression of the process by which the poet translates experience into verse becomes quite vivid indeed, and, moreover, quite pregnant with meaning. We may imagine Whitman's "peachpit" as emblematic and representative of the kind of small, petty, trivial object to which he refers previously in the passage. Into this very small, remarkably disposable object, the poet *channels* all his or her experience—each proverbial "sunset" that he or she has seen and experienced—in order to breathe life into the object and translate it into beautiful verse. Conversely, the small, disposable peachpit contains within it all the "grandeur and life of the universe," an energy which the poet not only sees but also can conduct

or *channel*. Hence the "life" of the peachpit, as well as the life of "all things," "enters with electric swiftness." What is notably missing is the object of this "entrance." Into what does it enter? What does it enter *into*? Again, Whitman's shifting subjectivity and objectivity allows for manifold possibilities. One possibility is that in an instant, the "life" of the object enters into the life and body of the poet or "seer." Another is that the life of the "seer" enters into the small space of the object. Yet another is that the life of the object enters into new life as verse. And another is that as verse, the object enters into the lives of the poet's audience, into their single and collective consciousnesses. All is made possible by a single connection and single encounter, a single, instantaneous transfer of life energy from one point to another. Electricity, in its fluidity, its swift and instantaneous transfer, and its ability to animate or reanimate that which might seem otherwise inanimate, thus offers Whitman a perfect and vivid way to describe this complex moment of poetic inspiration. It is no coincidence that he chooses the word "electric" to describe this phenomenon; it is hard to imagine another word in the English language that would share all of these characteristics simultaneously.

By metaphorically breathing life into a small, inanimate object, then, Whitman's "poet" is rendered analogous to the scientist—or automaton designer who could artificially "animate" an object via application of electricity or other mechanical means. But is such metaphorical, artificial, or virtual "life" merely metaphorical? Could it be understood as no different from "real life"? Like a highly skilled exhibitor of "lifelike" automata, Whitman obscures the difference between the "fake" and the "real" to such a great degree that we might begin to lose track of any

difference between the two. However, it may not be that Whitman is in this regard acting, like Barnum, in a way that would intentionally deceive his audience or perpetrate a hoax. In fact, it may even be that Whitman too has lost track of any difference, if indeed there is any difference to be found.

When Whitman returns to an image of the poet as "conductor" in "Song of Myself," then, we may wonder to what extent he (or his speaker) would understand this conduction as an actual physical attribute that one could possess, and to what extent he would find it to be merely a convenient metaphor or trope, used for literary effect. In other words, would he find realism in Emerson's suggestions that the poet, possessing genius, or endowed with the traits of "natural aristocracy," was somehow more physically predisposed to an abundance of electromagnetic conductivity—or, moreover, that having a "lightning-rod spine" would be a positive attribute to possess? Would he understand these as realistic representations of some observable medical truth, or would he understand them only as clever (or not so clever) turns of phrase?

Whitman introduces the concept of "conduction" in the following lines:

To be in any form, what is that?/ If nothing lay more developed the quahaug and its callous shell were enough./Mine is no callous shell,/ I have instant conductors all over me whether I pass or stop,/ They seize every object and lead it harmlessly through me. (53)

In these lines, Whitman's speaker simultaneously questions and advocates a fluidity of being that could literally take shape "in any form." The question is as much a closed

and rhetorical question as it is an open and sincere one. The sincere and open-ended version of the question might be understood in this way: what would it mean if one could "be" in any form? What would that look like, or feel like? How would the prospect of formlessness—or, more precisely, a malleability of form—have ontological significance for those of us who might otherwise cling to a fixed identity? The poem would earnestly have us to consider such a question. That said, that the question that the passage asks is also a closed-ended and rhetorical question may be found in the answer that follows. The hypothetical premise that one's existence could be limited to no other form of being than one—like a quahog enclosed in a hard, callous shell—seems to be a straw man that Whitman swiftly tears down. Throughout the poem, the speaker would consistently demonstrate that other, presumably more "developed" identities or subjectivities are indeed possible. In this regard, if we agree with the speaker that alternate subjectivities are possible, then the idea that one should maintain a fixed identity enclosed by a "callous shell" is a laughable precept: it is somehow simply inadequate, not "enough," or, at the very least, not enough for him.

What is also remarkable about this particular passage of "Song of Myself" is how it would further play upon and revise an Emersonian formulation that would understand the moment of poetic inspiration in terms of the abundance of "conductivity"—or "superconductivity"—of the body of the poet. While the difference between the poetic genius and the common man in Emerson's narrative would lie in the relative differences in their inherent abilities to conduct the energies perceived in nature to the "quick," the difference between the speaker/poet and others in Whitman's vision lies in the quahog-like "shell"—or the *callousness* of the shell—

that might surround or enclose others, but which does not surround or enclose the speaker. By maintaining a more fluid, more formless, more *electric* form of being, the speaker becomes more open—and thereby more sensitive and less "callous"— to others, whose life energies could then be conducted through the speaker's open, "shell-less" channels. This openness or, for lack of better term, "shell-lessness," may then be responsible for the poet's greater superconductivity, as there is no barrier that might impede or resist the flow of energy to the poet's mind or body. Whitman's poet would be freed of skin, freed from shell, freed from restraint or protective covering in essence, freed of insulation-because insulation would not be necessary. What appeared to be an almost genetic predisposition in Emerson's argument may then become for Whitman the product of a conscious choice, a willingness to remove barriers that might impede other's ability to see like a poet. In this way, Whitman imagines (or would have us imagine) not only what it would be like if it were true, as Emerson argues, that "the quality of the imagination is to flow, and not to freeze," but also what it would be like if corporeality and identity could truly flow as freely as the imagination.

As we have already seen, in Emerson's arguments we are presented with an image of the poet as channeling and conducting energies or, to put it another way, "rays and appulses," in a linear and unilateral fashion, to a single central point. In this model, the poet stands erect, phallic, and lightning-rod-like, possessing what we might call a "lightning-rod spine." As we will recall, Melville plays upon and critiques this image of a "rod-like" body when he envisions Ahab, for example, with his "rod-like" scar, who would pass the stored energy from his "Leyden jar" body and life to point of the crossed lances of his men as he embarks on his ill-fated quest to defeat the white whale. In both Emerson's and Melville's work we find what we might call "lightningrod men"— erect, rod-like, decidedly masculine bodies—who represent poetic genius in Emerson's work yet who veer toward madness or recklessness for Melville. In Whitman's poetry, on the other hand, we encounter exploration of similar themes, but with a very subtle but telling difference: his pluralization of the word "conductor" to "conductors." With this simple change, we are no longer presented with an image of the body as a singular rod that channels or conducts electricity to a single point: presumably the head—or what it inside it, the mind. Rather we may find a body that conducts electricity through multiple, if not infinite, points, with presumably the entire surface of its skin capable of conducting—or even radiating—electromagnetic energy.

Certainly the most casual glance at Whitman's poems in *Leaves of Grass* amply demonstrates that by no means does he shy away from implicit and explicit phallic imagery. Whitman was, moreover, not one to bowdlerize his work and omit anything sexually suggestive, especially images of the male genitals. Therefore, it is both curious and telling that, in imagining the poet as conductor, he would refrain from an erect, "rod-like" image like that pursued by Emerson or Melville. Whitman creates a model marked less by static identification with a particular sex or gender, and more by a dynamic, more universally applicable image of the human body. In this model, the body is presented as both giver and receptor of life energy—or, to put it another way, electrical current—through multitudinous and innumerable points, as if through every pore, rather than a single stroke of lightning to the mind, or a penetration of the eye by the light and energy that would enter it.

Whitman's speaker, superconductive and free of the callous shell that might impede or resist the energy that he or she might otherwise conduct, is rendered extrasensitive to sensual stimulation, serving as an involuntary receptacle for every thrilling, magnetic touch, and equipped with "conductors" that "seize every object and lead it harmlessly through [the speaker's body]." This phrasing recalls Whitman's earlier image of the "peachpit," when he wrote of "ha[ving] all things enter with electric swiftness softly and duly without confusion or jostling or jam." Free of the "callous shell" that would make the body impervious to this stimulation, the speaker's body is not endangered or harmed by the presence of this energy, but rather the energy enters "harmlessly," and "softly." The involuntary way in which this energy is conducted—conduction not due specifically to a condition of the mind or the free will of the speaker, but rather brought on by innumerable magnetic points on the body figures the speaker as a sort of automaton, automatically conducting or being conducted by energies from without that happen to be present in its environment, animated and being animated without having any sense of active control or agency. Yet agency or free will may be present in the speaker's decision to remove the "shell" that would otherwise presumably insulate the speaker from surrounding energies. Thus it is not clear that it is only the speaker or poet who is capable of such openness to experience because of some inherent physical or intellectual predisposition, some "genius," as Emerson might suggest. Rather a decision to be open, to decide that being closed is not somehow "enough," might allow anyone—any one whose body is, to paraphrase Whitman, "as good" the speaker's-to find and experience such

openness, an openness to giving and receiving of life energy that might encompass both male and female bodies.

The speaker's "shell-less" sensibility leaves his body ultra-sensitive to stimulation from without, stimulation that brings with it an inward joy—a happiness or sensual pleasure that, in its excess, borders the limit that could be possibly tolerated without surpassing that limit: "I merely stir, press, feel with my fingers, and am happy,/ To touch my person to some one else's is about as much as I can stand" (53). The sensual, sexual connotations of this body-to-body touch are electrical, its tactile stimulation resembling the release of a buildup of static electricity transferred from person to person. We might be reminded of Emerson's phrase in "The Poet" when he writes that for the poet, "every touch should thrill." For Whitman's speaker, every touch not only should thrill, but does. Being equipped with so many "conductors" transforms the speaker into an involuntary conduit of all electricity in the vicinity, electricity transferred from nearby objects or persons to his person, whether he is "stop[ping]" or "pass[ing]," in motion or at rest.

Yet this "touch" does not only offer sensual stimulation for the body; it becomes a catalyst for a change in identity or a change in form that may become as ethereal and bodiless as it might also in another instance be concrete and material, grounded firmly in the body. Consider the lines that follow, when the argument progresses to another question:

> Is this then a touch?....quivering me to a new identity,/ Flames and ether making a rush for my veins,/ Treacherous tip of me reaching and

crowding to help them,/ My flesh and blood playing out lightning, to strike what is hardly different from myself [...] (53)

Not only do we get a sense of the potential of this energetic "touch" to involuntarily "quiver" one to "a new identity," but we also are reminded of the treacherous or dangerous consequences that this electric, lightning-like "touch" might cause for the self, or for others who would otherwise be the object of this touch despite a supposed intention to "help." Using an image of a lightning strike to describe this touch, or to imagine what this touch could become when directed by misguided hands, reminds us how what might be otherwise a stimulating, pleasurable touch could also become violent, surging beyond the limits of pleasure and spilling over into what might be painful, or even deadly. Thus a sense of oneness with others and other objects and energies from without is suddenly and shockingly disrupted by a sense of how those "hardly different from [the self]" could "strike" out or take advantage of others, or drain one's life or energy. One question that this might engender is this: how could one manipulate energies and "touch" others in a generative and life-giving way, rather than one that is destructive, or life-defiling? Could the realization that that which you might violently "strike" is "hardly different from yourself" change your perception and make you think differently about "striking" in the first place? If we are but different manifestations of each other, sharing an essentially common and self-same atomic makeup, then is our manipulation or conduction of energies for the purposes of harming others merely a form of self-destruction? Writing in a time and place, for example, when slavery was justified on the basis of pseudoscientifically demonstrable

racial superiority, such a question was not merely an abstract philosophical one, but one with significant material and bodily consequence.

Certainly, the question of slavery was one that was central to another poem in the 1855 edition of Leaves of Grass, namely the then-untitled "I Sing the Body Electric," which, incidentally, would not take the name by which we would now know it until twelve years later, when it was added in 1867 as the first line of the poem. Much has been written about the extent to which Whitman's first-hand experience witnessing a slave auction in New Orleans significantly influenced and inspired his writing in this poem. Numerous critics have emphasized the centrality of the slave auction to the poem's themes, with some going as far as to argue that it is the defining metaphor of the poem, emphasizing the valuation, evaluation, and revaluation inherent in Whitman's extensive cataloguing and praise of each body part that would comprise the beauty of the male and female form. Such cataloguing of the beauty of the human form would offer a starkly contrasting parallel to the ugly accounting of the bodies of slaves: the prices placed on the bodies of slaves—and the relative values placed on their body parts—by the slave auctioneer. Through this contrast, and his speaker's assertion in the final lines of the poem that "[he] who degrades or defiles the human body is cursed" (123), Whitman is often understood as projecting a humanist and abolitionist impulse in the poem. David S. Reynolds stands as just one example among many critics who would identify this humanist impulse, when he observes that the poem "presents a profoundly humanistic variation of the slave auction" (39).

Not all critics have gone as far in their praise of Whitman's humanism and abolitionism, however. Some have even pointed to moments in Whitman's writing

when he may have appeared to hold unmistakably racist views. Kenneth M. Price, for example, writes that despite having "an extraordinary impact on writers from disadvantaged groups," Whitman was "hardly free of the racism of his culture" (5). Galway Kinnell echoes the sentiment, noting that despite being the "only nineteenthcentury poet who wrote powerfully about slavery...Whitman the old man became racist in his person" (420). Whitman scholar Paul Gilmore goes further, arguing in his book The Genuine Article that in "I Sing the Body Electric," "Whitman uses the slave body at auction as a test case for uniting all of humanity through their similar bodies," despite sometimes expressing "baffl[ingly]" racist positions in his articles elsewhere (153). Gilmore concedes, however, that despite the moments in Whitman's articles where he appears to participate in racist thinking, Whitman nonetheless in this poem "creates a poetic persona and form that transcend[s] his racist journalism and bind[s] him and his readers to black slaves" (153). In his later book Aesthetic Materialism, Gilmore builds upon this argument further, and discusses specifically why "electricity" and its associated concepts worked as such an important trope in Whitman's critique of American attitudes toward racial difference, arguing for example that while "most considerations of electricity in interpreting the poem reduce it simply to a force allowing the material, physical body and soul to be one...electricity, electrical technologies, and electrical understandings of the self, the body, and language held important implications for thinking through racial identities and racial politics" (168). If we agree with Gilmore, we might say that it is not simply that electricity offers yet another way for critics and readers to affirm Whitman's resistance to dualism; rather, the "understandings of the self" that electricity inspires

helps Whitman to "thin[k] through racial identities," as it also might in turn help his audiences to "think through" such identities for themselves. Irrespective of whatever were Whitman's personal views on racism, or whether or not they were contradictory, electrical tropes helped Whitman to imagine for his readers a pathway toward reconsideration of how race was constructed, by presenting them with the possibility of a fluid subjectivity that could dissolve hard categories of bodily difference.

Despite the significance of the history and development of electricity on the poem—a significance so strong that it not only inspired its new title, but also, in 1860, additional lines specifically referencing electricity—many critics still emphasize the slave auction and its implications for racial thinking in the antebellum era while deemphasizing the importance of electricity in the poem. Others, similarly lessening or ignoring the bearing that electricity has on the poem, emphasize its overt sexuality and sensuality, its open display of the naked body, and the erotic fetishization it would express toward body parts and bodily functions, all admittedly pervasive and persistent themes in Whitman's work. However, in diminishing the significance of electricity in the poem, they would elide not only its role in helping Whitman and his audience to imagine and reimagine constructions of selfhood or corporeality, but also its role in rethinking communication and language, in a time, as Clifford from Nathaniel Hawthorne's *House of Seven Gables* points out, the telegraph would revolutionize the way we communicate:

Then there is electricity,—the demon, the angel, the mighty physical power, the all-pervading intelligence!...Is that a humbug too? Is it a

fact—or have I dreamt it—that, by means of electricity, the world of matter has become a great nerve, vibrating thousands of miles in a breathless point of time? Rather the round globe is a vast head, a brain, instinct with intelligence! Or, shall we say, it is itself a thought, nothing but thought, and no longer the substance which we deemed it. (189)

In the world that Hawthorne imagines and envisions through his character Clifford, electricity has made it so that communication is not just an interaction or transaction between bodies, but increasingly a body itself, complete with "nerves" that might send its electrical signals across the globe in an instant. Whereas a society that privileged written communication would associate words with a certain materiality, the electric telegraph allowed words to be transmitted instantaneously, in a form that lacked materiality or substance, more like a "thought" than words etched permanently on a page or a stone tablet. Through this new technology, we might come to think of ourselves not as individuals possessing individual intelligence, but as parts and participants in an all-encompassing global intelligence that would connect us all, despite lacking a material "body" of its own.

We can hear echoes of Clifford's observations in "Poem of Salutation," the poem that begins the 1856 revision of the original text of *Leaves of Grass*: "I see the electric telegraphs of the earth,/ I see the filaments of the news of the wars, deaths, losses, gains, passions of my race." Such electric telegraphs, like the "tracks of the railroads of the earth" of the preceding stanza, would likely have a similar effect:

"welding state to state, county to county, city to city, through North America." Through this fusion or "welding" of individual bodies or groups of bodies, increasingly connected via electricity by nerves or filaments, human beings would come to be part of a larger, less material form of embodiment. This new technological reality of electrically transmitted communications opens a door to consideration of how all communications—whether they be oral, written, or tactile— could be understood in "electrical" terms. In a time when electricity was still thought by many to be a fluid, and was, moreover, also understood to behave like one, we might begin to imagine communication itself as fluid, or acting as a fluid. With this in mind, we might begin to ask, how might we be "charged" with this communicative fluid? How might we "charge" others with this fluid?

Reflecting on questions such as these, we might see how the lines that Whitman added in 1860 to the poem that would later become "I Sing the Body Electric" reflect and echo precisely this type of imaginative thinking. Revising the original lines of the 1855 edition that did not include the famous opening line, Whitman dropped the word "bodies" from his then-titled "Poem of the Body," and instead replaced it with "armies": "the armies of those I love engirth me and I engirth them, they will not let me off till I go with them, respond to them,/And discorrupt them, and charge them full with the charge of the soul." Playing on the word "arm" that is enveloped within the word "army," Whitman imagines through his speaker how one might enclose arms around or embracing a community of bodies that is larger than the single human body could physically embrace, while also being enclosed or "engirthed" in their collective arms. The word "engirth" may extend beyond more

than a hug, as its sounds suggest an embrace of the entire earth. In this love-fueled circuit, the superhuman, supercharged, superconductive speaker would "respond" to the armies' collective embrace through "charging" these "armies," a word suggestive not only of imbuing them with an electrical "charge" that emanates from the soul but, also in the sense of issuing a directive that would animate them toward achieving a common purpose. In this way, a "charged" being could express love, or presumably communicate other sentiments, through issuing a "charge."

Given the common belief that electricity was a fluid, this need not necessarily be understood only in an abstract, immaterial sense. In writing on Whitman's 1856 poem "Song of the Open Road," Sam Halliday argues that the "efflux of the soul" that is Whitman's own answer to the question of what exactly it is that he "interchange[s] so suddenly with strangers" may be understood as a "crypto-electrical substance" (145). If we understand that antebellum Americans such as Whitman may have indeed believed that communication could actually occur between bodies in the form of just such a "crypto-electrical substance," or, moreover, that in their view it was not just "crypto-electrical" but indeed electrical, then we may understand that his reference to the "charge of the soul" may not only be a fantastical and figurative abstraction of reality, but rather that it could be understood at this time as a realistic representation of something which could indeed occur in practice. In other words, it may not only be understood as merely a model for or an abstract representation of reality, but rather as an expression that would try to put into discourse and explain a not yet fully explored phenomenon, a phenomenon that was conceivably scientifically measurable or capable of being observed.

That Whitman's references to electricity may be understood as more than merely an abstraction or model, but could actually undergird already held beliefs by the public at a time when electricity was still only vaguely understood by most, if it was understood at all, is a subtlety that is lost in much critical work on Whitman's "body electric." We may see how failure to grasp or acknowledge essential differences between pseudoscientific "crypto-electrical" speculation and proven electrical theory might complicate our understanding of allusions to electricity as only belonging to the realm of the figurative in the work of Whitman and other American antebellum writers. The work of Ann Rutherford Carter exemplifies this critical failure to distinguish between "model" and "reality" when she writes, for example, that "Whitman's Luminous Self recognizes in a force like electricity a fully appropriate natural model for itself and celebrates the extreme value of that model" (120). While Carter astutely argues elsewhere about how electricity opens up new ways for Whitman to rethink selfhood and embodiment, what she fails to do at least in this instance is to acknowledge that it was not necessarily clear for Whitman-nor, moreover, for his audiences—that this is only a model, only a simulation of reality. In a time when automata became increasingly popularized, when the dead and inanimate could somehow be made "living," "models" of all kinds likewise became increasingly difficult to distinguish from their "real" counterparts. In short, while it is certainly plausible that electricity served as a model for Whitman's reconceptualization of selfhood, its fluidity allowing for imaginative considerations of multitudinous and shifting subjectivities, it is not necessarily so that he or his audiences would have perceived this only as a model or a simulacrum.

With this in mind, we should remember that despite slavery's importance to the "I Sing the Body Electric," and the fact that it may have been a source for the poem's inspiration, it is just one of many important aspects of the arguments and thinking that is animated by the poem. That Whitman dropped the title "Slaves," and then replaced it with the more generic and universal "Poem of the Body" before finally settling on "I Sing the Body Electric" in its subsequent versions, reveals a telling shift in Whitman's thinking. The arc of these revisions points to a movement toward making the poem more universally applicable to all human bodies, not just those subject to the evils of slavery. Moreover, it points to a growing desire to show how all of these differently shaped and equipped bodies could be fluidly connected together by one common unified theory—a theory that could simultaneously represent not only that connection, but also the flows and communications of energy and love between human beings that might be possible in a world where such commonality could be embraced. In mid-nineteenth century America, electricity served not only as a metaphor for such flows of communication, but also as the very real force that would make such communications flow. This was especially true following the advent of the telegraph, which would revolutionize how antebellum Americans thought about communications.

Slavery was an institution that commodified the human body, reducing a human being to an object rather than a thinking subject. Through this commodification and objectification, humans would not be valued for their individual intellects, feelings, or sensibilities, but rather for the relative quality of their body parts: strong shoulders, good hips, muscular arms, sturdy backs. In a world infected

by slavery, families were split and love was devalued in favor of paying handsomely for one's reproductive capacity and potential. A good womb, for example, would be bought at a high price. But in an increasingly industrialized capitalistic society, and one, moreover, that would increasingly use emerging scientific theory to support ideas of eugenics, slaves were not the only Americans who might potentially be evaluated based on the market value of their body parts. Not just slaves, but all men or women could find themselves increasingly valued or devalued because of their individual bodily characteristics. We may be well reminded of Emerson's assertion in "The American Scholar" that in the increasingly specialized industrialized economy, Americans had become "walking monsters," possessing only "a good finger, a neck, a stomach, [or] an elbow." Whitman's poem would address and critique precisely this phenomenon that would value the body part over and above the totality of combined, inseparable body and spirit, and in doing so, devalue both body and spirit. He would decry the reduction of the handyman to a good hand, a body part rather than a complete and whole being, by cataloguing and praising the body parts, both male and female, that would comprise the whole of human beauty, the whole of human life.

In essence, what Whitman does in cataloguing the virtues of each and every body part, including those which may occasionally be expurgated from polite conversation or deemed somehow unclean or taboo, is to make sacred and whole that which might be otherwise defiled or apportioned. In so doing, he also renders Emerson's "walking monsters" less monstrous, less othered. By stitching together body parts through language, Whitman rehabilitates the condition of humans who might otherwise be considered monsters, objects, or things, and instead celebrates the

common, universal humanity of all bodies. In this stitching together of parts, Whitman strangely resembles Shelley's Dr. Frankenstein. But rather than stitching together dead body parts to create and animate a complete "human being," Whitman stitches together words, and in so doing, simulates the creation of a "whole man" as a virtual body.

But again, the idea that the simulation of the creation of a "whole man" is only that, a simulation, may be lost, not only on Whitman or his speaker, but on us, the audience. When Whitman's speaker "sing[s] the body electric," this "singing" may not only to be understood as celebrating in verse the human body—a body that, as we have seen, could in many ways be understood as "electric" both in its receptive and its generative capacity—but, rather, it might be understood that in "sing[ing] the body electric," the speaker in fact brings a real "body" to life, and not just the "body of work" comprised in the poem. If we understand communication itself as "electric," the speaker might then be understood as applying electricity to words and with words, animating words and concepts not only in ways that resemble life, but which could actually be generative of life itself. In this way, the "charge" of the speaker's "soul" could be transferred fluidly to its readers, charging and spurring them to enact real change, not only in their thoughts about the human body, but also in their actions. In this way, a figurative "electrification" may be made somehow real; simulated animation and simulated life would translate to actual animation and actual life.

A reading of the poem that appreciates the lack of distinction it makes between its simulation of electrification and its actual electrification will demonstrate how Whitman might live up to his illustration of the poet as one who might breathe life
into—and thereby electrify and animate— the smallest, most petty of objects. Living in a society that privileged the eye or the hand at the expense of other body parts, Whitman rebuts this sentiment by praising and valuing body parts that might be otherwise overlooked or trivialized. The outcome of this thinking is not so trivial, however. When we praise the "peachpit" eye not over and above the armpit, we resist a mapping of the body that would portray some body parts as clean and others as not. When we praise the hand not over and above the nape of the neck, the skin, the intestines, the small of the back, the elbow, the nipples, the "sweet and clean" bowels, or the genitals, we resist the binary thinking that might cause us to devalue our bodies or, moreover, feel shame or embarrassment about bodies in general. Without adhering to a hierarchy that might privilege the brain or the heart over and above other equally alive and beautiful parts of the body, life and consciousness would not be limited to the domain of any one particular body part but rather the composition of all, all of which might conduct life through their many and innumerable points. A general sacredness of all body parts might lead to a general sacredness of the body, a sacredness that, when translated into actions toward others, would counter the categorization of human beings into groups of "clean" and "unclean," or "self and other" that might lead to justification of dehumanizing practices such as slavery. Such are the ideas that Whitman would animate, bring to life, or electrify through his poetry. In this way, Whitman's poems are types of automata: realistic simulations of life that, despite their animation or what they might potentially animate, may not be themselves "alive," not existing as autonomous, breathing, thinking, sentient beings.

That *Frankenstein* and *Leaves of Grass* have more in common than we might otherwise imagine may be demonstrated, then, when we consider how both employ electricity as they conjure or recall "dead metaphors," or, alternatively, as they attempt to make literal that which might otherwise be understood as metaphorical. Analyzing the "dead metaphors" of *Frankenstein*, Elizabeth Young writes the following:

...Shelley's monster is a literary elaboration of a dead metaphor. The very category of this literary figure implies a corpse....the Frankenstein monster can be seen as the "corpse" of the dead metaphor brought back artificially to life. The reanimating process is also one of amalgamation, given that so many dead metaphors involve a body part: the neck of a bottle, the spine of a book...The Frankenstein monster is both a reanimation and amalgamation of the severed body parts that customarily populate the category of dead metaphor. Indeed, it is not only that the body of the monster resembles the reanimation of the dead metaphor; it is also that the monster literally embodies this process of reanimation.

If we follow in Young's train of thought, we are to believe that, because Frankenstein's monster is made of parts of corpses, and parts of corpses often figure in metaphors that have become "dead" (such as the "face of a clock," etc.), then it would also follow that Frankenstein is not only an "elaboration" or "reanimation" of a dead metaphor, but also a "litera[l] embodiment" of this entire "process." We might apply a similar strategy to *Leaves of Grass*, and imagine how Whitman creates his own version of a "monster" in "I Sing the Body Electric," how he takes a random assortment of body parts of men and women—or to be more precise, *words* that would represent body parts—and assembles them into a new form and new body, and in so doing, elaborates on and breathes new "life" into what would otherwise be a "dead metaphor," a dead body, a poem as "corpse."

Such a reading, however, would forget that embodiment, at least in the literal sense, requires a real, concrete material "body." How can a literary character—or, for that matter, a word or figure of speech-literally embody anything? To believe that this is so requires that we understand embodiment as something that can occur without a body, that a linguistic representation of embodiment can itself indeed be an embodiment. This, however, as we may have already discovered, is precisely what the poems of *Leaves of Grass* would require of us. It asks us to see the word as flesh, and in so doing, asks us to at least temporarily suspend disbelief, to at least momentarily forget the concrete realities and limitations of our own individual bodies and imagine that we could literally embody others—and, moreover, be embodied in others. In "amalgamating" a series of "body parts," Whitman, in "I Sing the Body Electric" and elsewhere in *Leaves of Grass*, figuratively animates or reanimates a more universal human "body," in such a way that we might temporarily forget our own individual bodies or constructions of embodiment, or, moreover, that we might forget the limitations of bodies in general. It is in this forgetting of ourselves—this forgetting of what is representation and what is real and material-that Whitman constructs and gives birth to a dead metaphor.

We may understand the "dead metaphor" as synonymous with the cliché, as a figure of speech that has lost the freshness and originality of its previous usage, that has lost its power and meaning over time. However, we may also understand the "dead metaphor" more as Jacques Derrida does in *White Mythology*: a forgetting of the difference between what is real and what is not, a forgetting that a metaphor that has been used over time is, indeed, a metaphor. Young's argument on dead metaphors in *Frankenstein* itself pivots on a dead metaphor in this second, Derridean sense, since asserting that Frankenstein's monster could literally "embody" anything is to forget for a moment what it means to be "literal." Embodiment, too, is then rendered a "dead metaphor."

Whereas Shelley would have her protagonist "electrify" an assembled body amalgamated from parts of corpses in order to simulate a kind of bodily animation or reanimation, Whitman's speaker in "I Sing the Body Electric" would assemble and amalgamate words representing body parts and have us believe that his electrification of those body parts through language could not only simulate an animation of a new electrified body or "body electric," but could actually animate concrete and material bodies in practice. In this sense, the poet is understood as not merely offering representation and simulacra, not as merely giving us metaphors or figure of speech, but rather the poet (or, in other contexts, the orator or the artist) may be understood as truly a sort of electrician, one who through language manipulates, channels, and conducts an essential life force and passes this life force on to others in ways that might charge, animate, or reanimate them to take action.

It is in the birth of Whitman's dead metaphor of the "body electric" that his creations and body of work leaves one of its most lasting impressions. As Whitman blurs the real with the figurative, he seamlessly creates the semblance of life in his poetry just as the designer of an automaton creates the semblance of life in a frozen, lifeless doll, corpse, or other inanimate object. As we forget what life in fact is forget what is inanimate, dead, or frozen, and what is sentient, autonomous, and alive—we might reshape our ontology and construction of selfhood as we become free from the hazards of binary thinking that might limit or delimit us. Not only would this dead metaphor have profound significance for American understandings of embodiment and corporeality, but also for our understandings of language and those who manipulate it. In the wake of the "body electric," such manipulators of language might be understood as "electrifying" audiences, despite a loss of the literal sense of what real electrification of others would be in practice. As we shall see, when the "body electric" became increasingly clichéd over the course of the next century and beyond, it became a convenient trope deployed by those who would manipulate us, through advertising and promotion, to purchase products or services that would excite, entertain, or other otherwise improve us. Moreover, it became a trope embodied by those who would achieve fame and celebrity by demonstrating and performing an affect somehow "electric" or "electrifying."

CHAPTER 4

"DRIVING A BRAVE TRADE": ELVIS PRESLEY, MARILYN MONROE, AND THE LEGACY OF "LIGHTNING-ROD MEN" AND "BODIES ELECTRIC" IN AMERICA

"...the lightning-rod man still dwells in the land; still travels in storm-time, and drives a brave trade with the fears of man."

-Herman Melville, from "The Lightning-Rod Man"

"She was like somebody who picked up a high voltage wire and then couldn't get rid of it. She was connected with a very powerful current but she couldn't disconnect herself from it. You often felt she was supercharged."

-Saul Bellow, speaking about Marilyn Monroe

"A live concert to me is exciting because of all of the electricity that is generated in the crowd and onstage."

-Elvis Presley, speaking before the satellite broadcast

of his 1973 Aloha from Hawaii concert

When images of Elvis Presley's *Aloha from Hawaii* concert were electronically transmitted via satellite to an estimated worldwide audience of a billion and a half viewers, the entertainer and his team had successfully created the most widely viewed human performance ever witnessed in world history. Technological developments had only recently made such a "world concert" possible, and Elvis's transnational popularity had already made him the perfect candidate for such a concert. Elvis had never travelled outside the North American continent, so he relished the opportunity to expand further the reach of his music by "electrifying" a tremendous and as-yet-unsurpassed global audience. He would do so with his powerful and passionate singing, as well as his body movements—his signature hipshaking, his pelvic thrusts and gyrations, and his onstage karate chops and kicks— all of which had already brought him both considerable fame and infamy at home and abroad. Those unable to attend one of his live shows due to distance or expense could, through the power of modern technology, enjoy his performance from the comfort of their own living rooms. The result was something like science fiction come true, portending further possible Space Age triumphs at a time when America had, in landing on the moon, only recently achieved what had theretofore appeared impossible. Impressively, the Aloha from Hawaii concert would in fact surpass the 1969 moon landing in both American and worldwide viewership.

Given the technological and commercial achievement that the satellite concert would represent, Elvis's entrance music, namely the tone poem "Also Sprach Zarathustra" by Richard Strauss, is particularly apt, as it also famously served as the opening theme to Stanley Kubrick's film *2001: A Space Odyssey*. As Kubrick's film had been released only five years before the *Aloha* concert, it was an object of recent memory for many audience members. The music of Strauss, with all of its Nietzschean overtones eerily suggestive of the *Übermensch*, heralded the dawn of a

new age, and even a new phase in human progress. Set against this background music, the formidable electronically transmitted image of the bejeweled and jumpsuited body of Elvis, broadcast to over one billion televisions worldwide, could represent something almost superhuman, even otherworldly, as it penetrated a diverse array of television sets thousands of miles away from its remote and distant satellite somewhere in orbit.

Given the massive viewership of the Aloha from Hawaii concert, we might marvel at the profits Elvis's concert would have earned today in the age of cable TV and pay-per-view. All changes in musical taste aside, Elvis's management team could have probably raked in proceeds approaching the GDP of a small developing nation, even if only half of the televisions that tuned in that year subscribed to the broadcast. When we also consider the high ticket price paid today by concert-goers who wish to see top-tier musical acts approaching the status of so-called "living legends," we might further imagine the hefty ticket prices that Elvis could have charged those who wished to experience his record-setting Hawaii concert live and in person. Imagine what potential audience members would pay for front row seats and the opportunity to see him up close, or even touch him or procure a scarf laced with his sweat, tears, or saliva. Elvis did not charge money for the concert, however, despite its whopping production cost of \$2.5 million. Fans were able to attend both the live concert and its rehearsal in person for free, albeit with the suggestion that they should donate whatever they felt they could afford to a charitable cause of Elvis's choosing. The combined donations, which ended up totaling upwards of \$75,000, would be offered to the Kui Lee Cancer Fund. Elvis had, in effect, turned down a golden opportunity to

capitalize on the broadcast for immediate monetary gain. While the *Aloha from Hawaii* concert was not exactly a benefit concert on the scale of George Harrison's 1971 *Concert for Bangladesh*, it was the first satellite broadcast show to use its proceeds for a charitable purpose, paving the way for much later large scale benefit concerts broadcast by satellite, such as the *America: A Tribute to Heroes* concert performed in the aftermath of September 11, 2001.

So why would Elvis choose not to capitalize fully on such a huge moneymaking opportunity? One possible answer is that he knew that offering such an expensive and record-breaking concert for free, along with giving audience donations to charity, would further promote his public image as one who was kind and generous—not only to his fans, but also to the larger community. Moreover, he and his management both knew that having the opportunity to spread his music and image across the globe could potentially more than pay back any investment made on the television special. Broadcasting to over a billion homes could potentially reap impressive future monetary benefits, in the form of album sales, concert tickets, and other merchandising. But, unbeknownst to Elvis, any prospect of a world tour of live concerts was impossible under his current management. Elvis's manager, former carnival barker and promoter "Colonel" Tom Parker, had failed to disclose that he was an undocumented illegal immigrant from the Netherlands who would likely not be allowed to return to the United States if he were to leave its borders. Consequently, although Elvis wanted desperately to travel outside the United States, he was rebuffed at every turn. The *Aloha* concert thus offered him a way to enter the virtual airspace of foreign countries, even if it did not allow him the personal pleasure of international

tourism. Certainly Elvis was well aware that the concert could expand his potential market and increase worldwide sales, a benefit undoubtedly well known to his manager, Colonel Parker, who had for his part run up massive gambling debts during Elvis's tenure in Las Vegas. But for Elvis, who had from a relatively young age experienced nearly every imaginable luxury that money could afford, and gave often and freely of what he had to those around him, acquisition of money and material wealth was less a motivation for the concert than was the opportunity to share his own brand of "electricity" with the world, by sharing the vibrant energy of his performance with an unprecedented number of audience members, in what would be the largest virtual live concert ever.

When asked about his motivations for the *Aloha from Hawaii* concert in a press conference prior to the show, it is not surprising, then, that Elvis specifically named "electricity" as the reason why he was attracted to live concerts, and, presumably, to this show in particular. He had long craved a return to the energy that he felt from direct responses from the crowds during his performances of the 1950s. The *Aloha* concert would represent a watershed moment in his return to live performance, otherwise known as his "comeback." Throughout much of the 1960s, Elvis had been tied down to long-term Hollywood contracts by his manager, making over two dozen B-movies. Although the movies were financially rewarding, Elvis found the work boring and unfulfilling. Starting with his famous "comeback" 1968 television special, he made a conscious career move to return to live performance. Live concerts were for Elvis more exciting, more stimulating—presumably because they felt more "electric." In a live concert, the energy, enthusiasm, and passion that

Elvis gave to his performances could be immediately returned in kind with mutual feelings from his audiences, all of which simulated a kind of ineffable "electricity." In his 1970s live shows, Elvis would be just such an "electrician."

Coincidentally, Elvis had studied to become an electrician in the very real and literal sense in the days when he earned a living driving a truck for the Crown Electric Company, before he was catapulted to national and international fame as a recording artist. Referring to this piece of biographical trivia in a 1969 press conference at the outset of his live Las Vegas shows, Elvis jokingly commented that he didn't ultimately pursue the electrical trade because he "suppose[d] [he] got wired the wrong way round somewhere down the line" (qtd. in Eisenberg 120). The fame and fortune that rapidly precipitated from his early recordings of the mid-1950s would change the course of his life so dramatically that he no longer needed to bring electricity literally to people's homes by connecting their wires, outlets, and junction boxes at a time when many American families, including his own, had grown up with no electricity connected to their homes. Instead, his musical career allowed him to bring a kind of metaphorical "electricity" to people's homes by inspiring energy, excitement, and enthusiasm through the experience of his musical and physical performances. Paradoxically, his being "wired the wrong way" is what made his latter success possible. But in facetiously applying an electrical metaphor to his body, Elvis may not only be offering humble self-deprecation. Rather, his statement may be indicative of a sincere belief that he was indeed created differently than other human beings, that God had endowed him not only with talent, good looks, and a beautiful voice, but also with a certain abundance of "electricity" or "magnetism" that made him more naturally attractive

than others, somehow more naturally suited to the career that he eventually adopted. To this extent, being "wired the wrong way" was precisely what was so right about him. His faulty wiring is what would, according to this narrative, make him eventually so successful and famous, even if he never achieved his original career goal, never having completed his formal training as an electrician in the literal sense of the word.

While the extent to which Elvis thought of his body as actually electromagnetically supercharged and conductive is unclear, his belief in the innate abundance of electromagnetic force of his body—in at minimum an imaginary or clichéd sense—is underscored by his favorite and most famous ring, known as the "TCB ring." The TCB ring, which he wore during his live performances in the 1970s and right up to the time of his burial in 1977, consisted of a large diamond with the letters "TCB" below, flanked by two lightning bolts on a rectangular field of black onyx. The letters stood for "Taking Care of Business," a personal motto he had adopted since the beginnings of his return to live performance in 1969, and the same name that he had given to his new backup band, which came to be known thereafter as the "TCB Band." The lightning bolt would represent a "flash" of light, thereby, according to some accounts, making the full motto read as "Taking Care of Business in a Flash." The ring further represented the "electricity" of Elvis's onstage performance, as well as the performance of his backing band. In essence, the "business" that they were "taking care of" was precisely the generation of the "electricity" and excitement that had inspired Elvis to return to the live stage in the first place.

The ring itself was based on an original logo created by Elvis that placed the letters "TCB" atop a single jagged lightning bolt symbol, akin to that found on the costume of Captain Marvel, a particularly favorite comic book superhero from his youth. Numerous biographers of Elvis have remarked on the star's affinity with Captain Marvel, as well as the spinoff character Captain Marvel Jr., who also rose to great popularity during Elvis's boyhood. Captain Marvel Jr.'s cape and colorful attire would later inspire some of the designs for jumpsuits worn on stage by Elvis during the 1970s. Elvis biographer Azalia Moore goes even further to underscore the impression that Captain Marvel Jr. made on a young Elvis, going as far as to say that Captain Marvel served as a sort of "alter ego," as "this young boy with his magical powers could make everything in the world balance and conform to good moral and ethical behavior" (Moore et al 137). As novelist Bobbie Ann Mason writes in her biography of the "king of rock and roll," young Elvis's fascination with Captain Marvel had to do with the fact that "lightning bolts symbolize[d] power." Mason further observes that, inspired by Captain Marvel, Elvis would later decorate what became known as the "Jungle Room" in the basement of Graceland with lightning bolts. Elvis's well-documented and oft-repeated affinity for Captain Marvel has prompted the theory that the TCB logo, too, was inspired by Captain Marvel, whose chest was emblazoned with a large jagged lightning bolt. Given the example of the outfits inspired by Captain Marvel during the 1970s live shows, we may wonder to what extent his fascination with the comic-book superhero—and his fantasies of embodying the character—may have continued well into his adulthood. In a 1980 interview, Linda Thompson, Elvis's live-in girlfriend for a large portion of the era of

his 1970s live shows, commented that during the time she knew him, Elvis "was still a little boy...never had an opportunity to fully grow up." If we take Linda Thompson's claim as true, it may not be unreasonable to speculate that Elvis may have continued in his adult life to imagine himself as a sort of Captain Marvel, Jr. figure, who could actually conduct and manipulate "electricity" in order to bring good to the world.

The "Captain Marvel" theory is not the only explanation for the TCB insignia, however. Others have written, for example, that Elvis's TCB logo has a more nefarious origin, as its lightning bolt design may have had associations with symbology of the West Coast Mafia, and their slogan to "Do It Quick." As Elvis would give jewelry with the TCB logo to members of his innermost circle and entourage, known affectionately as the "Memphis Mafia," the TCB logo would then work as sort of an inside joke. Yet another theory claims that the TCB logo found its origin in the insignia of Elvis's regiment in the U.S. Army, the 32nd Armor Regiment, a component of the larger 3rd Armored Division, whose "Spearhead" insignia contained an unmistakable red lightning bolt at its center. Joe Esposito, one of Elvis's closest confidants in the "Memphis Mafia," served with Elvis in this regiment during the time they were stationed in Germany together, and surely would have understood this reference. While many competing and divergent theories exist regarding the stimulus for the original TCB logo, one particular theory that stands out for the vividness of its anecdotal evidence is that propagated by Kathy Westmoreland, a close friend, one-time lover, and a backup singer with the TCB Band, who in her 1987 book includes the claim that Elvis told her he was inspired to create the logo after personally witnessing a bolt of lightning strike a marble statue in his Meditation Garden at

Graceland. The lightning bolt reportedly left behind the exact jagged image of itself on the statue, a phenomenon Elvis is said to have interpreted as a sign from God, instructing him to shun anger and bring happiness to the world. Presumably enlightened by this experience, Elvis decided, at least according to Westmoreland's account, to incorporate this sign as a central symbol of his embarkation back on the live concert circuit.

Whatever the inspiration for Elvis's TCB logo, his choice of a lightning bolt as a defining symbol of his entertainment enterprise further demonstrates the centrality of "electricity" to his understanding of what his performances could do, both for himself and his audiences. In a time when the phrase "electrifying performance" had already become tired and overused—especially in reference to musical performances—Elvis desired to bring new life to the cliché, by offering a show so exciting and vibrant that fans would not soon forget it. Elvis's ability to produce and reproduce "electrifying performances" night after night would not only be a desirable outcome in the eyes of fans and concert reviewers alike, but it also could become a sort of brand, a potential way of marketing himself. But, if we consider the possibility that Elvis actually understood himself, like Captain Marvel, as privileged with special powers to manipulate and control electrical forces, we may see that Elvis did not think of electricity as only a possible brand or marketing tool; rather, he wanted truly to embody electricity in his live concert performances. In other words, "electricity" served not merely as a cliché or a figure of speech. For Elvis, he felt his body would actually generate and radiate a sort of "electricity" that could be transmitted to his fans.

Elvis lived in an era in which "electricity" and "magnetism" had already become clichéd catch-all phrases to describe affect that was somehow inexpressibly desirable or attractive to others. Elvis was undeniably attractive to many, in ways that went beyond merely his physical appearance or his musical abilities. In a 1980 interview conducted by David Frost, Ginger Alden, Elvis's girlfriend at the time of his death, touched upon the inexpressible power of attraction that she believed Elvis possessed: "Elvis had a very special aura or mystical attraction about him that is really hard to explain." In a 2002 interview with Larry King, Linda Thompson, who accompanied Elvis to all of his live shows during the time they were dating, was even more specific in naming "electricity" as the reason why he was such a captivating entertainer in the 1970s:

> He had an electricity. You know, when Elvis came out on stage, it became electric. And the way people responded to him was such that, you know, I never saw that kind of response to any other performer.

Linda Thompson was not alone in identifying "electricity" as a key impetus for the adulation of fans toward Elvis, however. Reviewers and critics would often respond similarly when commenting positively on Elvis's 1970s performances, noting their "electricity." For example, a 1970 *New York Magazine* film review of *Elvis: That's the Way it Is*, a documentary that chronicled Elvis's first year of live concert shows in Las Vegas in 1969, uses language that echoes Linda Thompson's later assertions: "the Elvis-the-Pelvis of the fifties has very obviously developed into an electric

personality, a vibrant entertainer and an accomplished artist" (Crist 71). In an article in *Life* of that same year, Albert Goldman, who would later go on to write a controversial and salacious unauthorized biography of Elvis after the singer's death, similarly leans on an electrical trope for rhetorical effect, using it here to wax hyperbolically on the sexiness of the top-grossing Vegas superstar:

> Not since Marlene Dietrich stunned the ringsiders with the sight of those legs encased from hip to ankle in a transparent gown has any performer so electrified this jaded town with a personal appearance. (17)

Goldman likens Elvis' sex appeal to electricity, thereby reactivating a longstanding and clichéd association between electricity and sex appeal. Yet, as Linda Thompson's use of the term suggests, "electricity" captured something else, some immeasurable, indefinable quality about Elvis that went beyond mere sexiness.

As Elvis's health declined and his physical condition deteriorated, comments about the "electricity" of his shows soon would become displaced by comments about his increasing weight, as well the incoherence he sometimes displayed on stage. The surge of disparaging remarks made about Elvis and his increasing age and weight culminated most famously in Johnny Carson's comment on the *Tonight Show* in January of 1975 that the singer had become "fat and forty" (qtd. in Jeanssonne et al 192). Upon hearing of these remarks, Elvis became angry and decided he would no longer watch Johnny Carson's show. He did not find Carson's joke funny, nor did he appreciate being the butt of the joke. That month was certainly no joke for Elvis, however, as by the end of the month he was admitted to Baptist Hospital in Memphis after "his girlfriend, Linda Thompson, found him struggling for breath" (Jeansonne et al 192). He would be kept in the hospital by his doctor so that he could be treated for his addictions to prescription medications, addictions which had by that time already expanded to life-threatening proportions. It would not be the last time that Elvis' drug addiction reached a breaking point that required intervention from those close to him. Despite such struggles and near-death experiences, Elvis continued, however, to deny to the public and to his fans that he had a problem with drugs, or with his health in general. More troubling was his denial to himself that he had a life-threatening problem. Meanwhile, despite legions of devoted fans who continued to attend his shows, poor concert reviews continued to circulate, alongside increased speculation about his declining health and his possible addictions. Such negative attention continued to trouble Elvis, right up to the time of his eventual drug-related death in August of 1977. Yet he would continue, night after night, even to his last show in the summer of 1977, to attempt to "electrify" the crowds, doing whatever he felt was necessary to achieve that goal, even if he would risk his life to do so.

Long after Elvis's death, his doctor, George Nichopoulos (also known as "Dr. Nick") continued to use electrical metaphors to describe the transformation that would take place each night that Elvis returned to the stage:

He would change from one person to another as soon as he walked on the stage. He would just go through a metamorphosis—all of a sudden he flipped a switch and looked like a toy soldier dancing up there. (qtd. in McKay)

Given that Dr. Nick was later indicted for his role in prescribing excess medications to Elvis, the statement is chilling. Elvis, who became increasingly reliant on and dependent on prescription medications in order to perform on a nightly basis, would come to abuse those same medications in the attempt to continue to perform at such a high energy level. If taking one pill improved the perception that his performance was "electric," then it follows that multiple pills could conceivably magnify that perception, and, furthermore, magnify the "electricity." In this way of thinking, the ideal performer would be a kind of "toy soldier" or automaton, impervious to bodily damage and abuse, who could simply "flip" a switch—or have a switch flipped— in order to create the effect of metaphorical "electrification" of audiences, night after night. As far back as 1956, Elvis had described the act of performing itself as similar to conducting electricity: "it's like a surge of electricity going through you...it's almost like making love, but it's even stronger than that...sometimes I think my heart is going to explode" (qtd. in Guralnick 186). But after two decades had passed, Elvis's heart had metaphorically "exploded" on countless occasions, due to such "surge[s] of electricity." The simple fact that he was not a toy soldier but was rather a human being—a human being with a body that was giving out on him due to years of drug abuse—was a fact that would, by 1977, finally catch up with him. Elvis's embodiment of the desire to "electrify" and "be electrifying" had come at a high price, ultimately costing him his life.

It may be tempting to think of the life and death of Elvis as a sort of cautionary tale, an example illustrating the dangers of taking the metaphorical "electricity" of one's body to an unfortunate extreme. Clearly Elvis was not Captain Marvel, irrespective of whatever fantasies he may have had to the contrary. But to view Elvis's life in this way is far too pat and reductive. Furthermore, it fails to acknowledge a larger issue at hand: Elvis's failure to distinguish between clichéd bodily "electricity" and actual electromagnetic energy is more indicative of an increasingly prevalent understanding that to be "electrifying," at least in the clichéd if not the literal sense of the term, was a desirable goal for anyone aspiring to perform successfully. What was forgotten by those who would adhere to this cliché was that this "electrification" was not indeed real: electricity was not in fact transmitted or transferred from the performer to the audience, or vice versa. However, given the pervasive conflation of scientifically demonstrable electromagnetism with metaphorical and imaginary notions of electromagnetism in popular culture from the mid-eighteenth century forward—notions informed, incidentally, by art, literature, and pseudoscience alike—Elvis's apparent confusion is understandable. In attempting to embody clichéd "electricity," Elvis was likely neither aware of the long history of the cliché, nor was he fully aware that it was indeed a cliché at all, not somehow an accurate reflection of concrete physical truth. Elvis, like many other Americans, had confused real and imaginary electricity.

The confusion between real and imaginary electricity is a problem particularly endemic to the concept, making it in some ways different from other examples of what we might call "dead metaphors." If we consider for example the "face of a clock," or

the "arm of the chair," we may agree that speakers of English would need reminding that the "face of a clock" is not in fact a "face" in the bodily sense, or that, similarly, the "arm of a chair" is not, in fact, an "arm." In both cases, what may have once been an imaginative figure of speech has transformed through repeated usage into a word that defines and signifies its corresponding concept in a more literal, concrete sense. Such is a common phenomenon in language, and, moreover, it is a phenomenon that may be understood as a defining feature of language. Yet if an English speaker were asked if the "face of a clock" was actually a "face," or if the "arm of a chair" was actually an "arm," that speaker would likely instantly recognize this as false. This is not necessarily so for "electricity." When given the example of human bodies as somehow "electric," one may find it difficult to distinguish between metaphor and concrete material fact, if for no other reason than that human bodies *are in fact electrical*, with hearts that beat according to electrical impulses, and nerves which send electrical signals to the brain.

While most today would not likely believe, for example, that the human body could literally shoot lightning bolts from its fingertips at will, à la the Emperor from *Star Wars*, one might easily be led to imagine bodies as truly possessing characteristics from the realm of electrical pseudoscience or metaphor. Hence the continued popularity of medical devices or treatments purported to cure ailments via electromagnetic means, such as magnetic bracelets or so-called "energy medicine," which have little or no scientifically documented medicinal effect. But even while we might criticize those who are duped into buying products marketed by modern day "snake-oil salesmen," whose marketing pitch would allude hazily to electromagnetic

pseudoscience, we may understand the basis of the logic behind the assertions made by those who would market such products. If human bodies are electrical, and electricity is, at least in a metaphorical sense, tied to the essence of life and feeling, then why, for example, wouldn't it follow that an abundance of bodily electricity or electromagnetic conductivity could be somehow a good thing? Why wouldn't it follow that a redirection of electromagnetic flows in the body could improve one's health and well-being? The scientific reality of corporeal electromagnetism was something which had long been an object of speculation, but which became more readily and clearly demonstrated as the 20th and 21st centuries progressed, especially with progress made in the field of neurology. Given this scientific affirmation of a concept which was once held only as a fringe view, as well as the long history of popular misunderstandings and confusion around the concept of "electricity" in general, it may become increasingly difficult to distinguish between imagination, pseudoscience, and physiological or biological fact. In other words, it may become increasingly difficult to understand that metaphorical "electricity" is indeed metaphorical—that, when employed as a kind of dead metaphor, it is in fact "dead."

As discussed in the preceding chapter, Walt Whitman lived during a time when electricity was not a household word, and, moreover, when electricity was little understood—if understood at all—by the general public. Whitman thus wrote during an era in which imaginary and metaphorical notions of corporeal "electricity" became increasingly conflated with the reality of how electricity functioned in and upon the human body. In many ways, his "body electric" stands as a perfect example of that conflation. Through the figurative language of *Leaves of Grass*, we might be led to

forget temporarily that imaginary electromagnetic conductivity of bodies is not the same as actual electromagnetic conductivity of bodies. Likewise, in the age of online avatars and other "virtual bodies," we might temporarily forget that human bodies, unlike electricity, cannot incorporeally "flow" between different points or instantiations. In "sing[ing] the body electric," Whitman would celebrate the "electric" body—or, more specifically, the *superconductive* electric body, the body possessing vitality in the form of abundant electromagnetic conductivity or energy as something particularly to be admired or revered, while simultaneously failing to acknowledge what we would later learn as scientific reality: all human bodies are both electrical and conductive in nature, and therefore to be an "electrical" body is neither unique nor special. Yet, during the time in which Whitman composed and revised the poem that would become "I Sing the Body Electric," being "electrical" or "magnetic" in nature became increasingly understood as a desirable human trait, rather than simply a feature that all human bodies share in common. Such formulations would have consequences and repercussions that would continue to our present moment, informing and undergirding the thinking of not only Elvis Presley, but also many other Americans before and since.

What was largely left uninterrogated in such formulations was this: why exactly was being "electrical" or "magnetic" such a desirable trait? Why should it be a characteristic that one would hope to possess, or desire to achieve? And what is the difference between possessing an attractive or appealing quality of behavior and mannerism and being literally more electromagnetically conductive as a human body? From Whitman's 1870s to Elvis's 1970s, few if any reviewers or critics gave such

questions much thought, largely taking the cliché for granted without necessarily pondering its origins as a conceptual construct.

Already by the time of the publication of *Leaves of Grass*, literary critics and reviewers used adjectives associated with "electricity" or "magnetism" in order to describe Whitman's *oeuvre*, as well as its effects. Ann Rutherford Carter, writing in the 1970s, is among the twentieth century scholars who have commented on the many references made to the "electrical" or "magnetic" qualities of Whitman's work in positive nineteenth century reviews of his poetic accomplishments. Carter cites the example of Anne Gilchrist, who, in her 1870 work "An Englishwoman's Estimate of Walt Whitman," wrote that she "had not dreamed that words could cease to be words, and become electric streams" (qtd. in Carter 114). But references to the "electricity" found in Whitman's body of work often extended further, to commentary on the "electric" qualities of Whitman's physical body, personality, and voice. For example, a brief note in the "Personal" section of an 1872 issue of *Harper's Bazaar*, discussing Walt Whitman's oration at the commencement ceremonies at Dartmouth College, alludes to the "electricity" exuded by Whitman, observing that the "pundits" there found that Whitman's "voice is wonderfully electric, and his tall figure, sunburnt face, and intellectual eyes very impressive" (571). Carter, echoing this observation, claims that "Whitman's closest friends were especially sensitive to his electric personality and the electricity of his mature voice," and to illustrate this, she looks to the example of Richard Maurice Burke, who wrote of "the magnetism...of his presence" (114). Burke's comment is one of many which abound among nineteenth century critics and reviewers who would attribute Whitman's poetic success to his own inherent magnetic

or electric corporeality. For example, in an 1875 article in *The Gentleman's Magazine*, the reviewer, Arthur Clive, writes that

Life is intense in [Whitman], and the fire of existence burns brighter and stronger than that of other men. Thus he does his reader service: he seems out of the fullness of his veins to pour life into those who read him. He is electric and vitalizing. (714)

For reviewers such as Clive, it is not simply that Whitman addresses the topic of electricity or electrical bodies through his poetry; the poet himself is "electric," as his body is filled with vitality and an intensity of "fire" that is "poured" into the reader, thereby filling the reader with similar vitality. In Clive's formulation, Whitman's genius lies in the fact that his body is special and unique, different from "other men." Whitman is overflowing with energy, here understood as a kind of electromagnetic energy, energy so abundant that it almost spills from his veins and onto the page, whereby it might be conducted by the reader. It is not clear that Clive's references to electricity are only metaphorical, nor is it clear that he sees an overabundance of corporeal electricity as anything but a positive and "vitalizing" attribute. Clive would have us earnestly believe that a transfer of electrical force actually occurs in the act of reading Whitman, and that such a transfer would somehow do a reader "service."

Similarly, John Burroughs, writing in an 1876 issue of *Galaxy*, is also compelled to remark on the electricity and magnetism that is inherent in *Leaves of Grass*, commenting for example that he was "take[n]...[by] the tremendous personal

force or magnetism back of his poems" (57). Later, writing in particular reference to Whitman, Burroughs observes that the works of great poets "flam[e] up with electric and defiant power—power without any admixture of resisting form, as in a living organism" (59). Ann Rutherford Carter also notes how Burroughs would equate Whitman's success as a poet with his own inherent electricity, when she remarks that "Burroughs thought Whitman's 'special gift' to be 'his magnetic and unconquerable personality'; 'he is fluid, generative, electric'" (115).

But Whitman's supposed "electricity" was not only applauded by his reviewers; it was also used in the packaging of Whitman by his publishers. For example, in an advertisement in an 1860 issue of *Spiritual Eclectic*, Whitman's publisher, Thayer and Eldridge, invited potential readers to read the "strong and electric writings of Walt Whitman" (63). The same advertisement would appear in a number of widely read periodicals, including the Atlantic Monthly. One such advertisement, appearing in an 1860 issue of the periodical *Banner of Light*, places the advertisement for *Leaves of Grass* adjacent to advertisements for clairvoyants, spiritualists, and even an "electrician and psychometric physician" (5), suggesting some correlation between these practices and Whitman's work. Such examples serve as evidence and testimony that would illustrate how Whitman's fans, as well as those who would profit from his fans, employed electricity and magnetism as tropes to applaud the poet's work, while taking for granted the notion that electricity and magnetism were indeed positive attributes. Moreover, in describing or packaging Whitman as an "electrical" or "magnetic" poet, such writers would fail to acknowledge that the poet's words themselves do not in fact electrify or magnetize,

regardless of whatever feelings or emotions they may inspire, or whatever neural responses they may simulate or stimulate. For her part, Carter misses this nuance, and, as a result, she does not place much if any narrative distance between her own arguments and those presented by nineteenth century readers of Whitman, instead largely reading with the grain of the nineteenth century reviewers she cites. In fact, she appears wholly in agreement that not only are Whitman's words "electric," but so too is his body. This example illustrates how, from the 1870s to the 1970s, the metaphorical "electricity" of one's words or artistic performance could become easily confused or conflated with the supposed corporeal electricity of the orator, artist, or performer.

It is unclear whether or not Elvis Presley ever read Walt Whitman, or, even if he did, that he directly applied any of Whitman's thinking to his understanding of his own body, persona, or artistic endeavors. This has not prevented a number of biographers and scholars from drawing analogies between Whitman and Elvis, however. Even though Elvis never composed his own music, he is often credited with synthesizing a number of threads and genres of American music in ways that would cross racial and cultural lines, by mixing elements of country, rhythm and blues, and gospel. For this he is described as, like Whitman's speaker in "Song of Myself," "contain[ing] multitudes." Biographer Bobbie Ann Mason puts it this way: "…he blended all the strains of American popular music into one rebellious voice; like Walt Whitman, he was large—he contained multitudes…" David Sanjek, writing on the music of the South, echoes Mason when he says that "Elvis contained multitudes, and in that variousness assimilated the complexities and contradictions of his region, his

race, and his nation" (393). Charles L. Ponce de Leon goes further, writing that "in the spirit of Walt Whitman, [Elvis] was committed to making music that 'contained multitudes,' encompassing the richness of our tangled, complex heritage—at a time when virtually every force in the land was encouraging strife and disunion" (211). Understood in this light, we may see how Elvis may have embodied a characteristic of Whitman's "electric" speaker of *Leaves of Grass*, who was, through a shifting and multitudinous subjectivity, somehow able to liquefy boundaries of bodily difference or limitation in order to sing and celebrate the beauty of all human bodies at a time when phrenologists would offer pseudoscientific rationale for the inherent superiority of some bodies over others. Performing during a time of significant racial tension, Elvis was somehow able to bridge gaps between racially coded musical genres and synthesize them. And, at a time when much of his American South was still plagued by the scourge of racism—where, in his very own hometown of Memphis, Martin Luther King was murdered—Elvis would choose to sing the song "If I Can Dream," a tribute to Dr. King with lyrics inspired by King's own speeches, as the grand finale of his highly rated 1968 "comeback special," which aired just eight months after the assassination. This and other examples of Elvis's attempts to dissolve racial difference might lead scholars such as those listed above to conclude that Elvis, like Whitman's speaker, is "multitudinous." What is missing from the commentaries that would associate the "multitudinous" quality of Elvis with Whitman's speaker, however, is precisely the "electricity" that would inform the state of being "multitudinous." As suggested by Paul Gilmore, tropes of "electricity" went hand in hand with dissolution of racial boundaries. In this way, Elvis may be understood as

further embodying Whitman's vision, as he attempts, consciously or not, to put such "electricity" into practice.

Even Elvis's sex appeal—and, by the same token, the overt sexuality of Whitman's poetry-may be tied to an embodiment of "electricity," understood metaphorically as a vital and life-giving force, somehow associated with fertility. To see how this is so, we may trace clichés of sexual "electricity" back to their 18th century origins. As we have already seen, medical electricity had been used, since as early as the late 18th century, in the treatment of health problems related to infertility. Early on in the practical application of electricity in medicine, it became understood that electricity could somehow stimulate the vital fluids of the body, restore sexual health, and resolve sexual dysfunctions. In her book *The Body Electric*, Carolyn de la Peña disputes this, however, writing for example that "early physicians who experimented with electricity in their practices did not use it to treat sexual dysfunction" (146). De la Peña goes on to characterize the use of medical electricity in the treatment of sexual dysfunction as a decidedly Victorian phenomenon. Such a reading would have us believe that this particular medical application of electricity rose into being spontaneously sometime in the mid to late 19th century—in other words, after the publication of Whitman's 1855 edition of Leaves of Grass. However, historian James Delbourgo reminds us that such association between electricity and sexual health—as well as the application of such thinking—can be traced as far back as the late 18th century, to the very beginnings of medical electricity itself. For example, Delbourgo points to the example of English physician John Shebbeare, who believed that "male erections resulted not from a distention of blood vessels but from

the action of a 'vital fire," while "male 'dejection' arose from 'the want of sufficient quantity of this fire" (117). We are to understand that "vital fire" was in the late eighteenth century essentially synonymous with electricity. This may be found in the work of eighteenth century English scientific writer George Adams, who wrote for example in his *Lectures on Natural and Experimental Philosophy* that "vital fire is the cause of muscular motion, and...this vital fire is of the same kind produced by our electrical machines" (322). Those who would subscribe to such philosophy of "vital fire" might easily be led to accept Shebbeare's associations of electricity, vitality, and sexual health.

Delbourgo works to illustrate how the correlation between electricity and sexual health translated into practice by offering examples of physicians such as James Graham, who "invited couples to increase their fertility in his electrified 'celestial bed' in London in the 1770s" (117), or James Walker of Virginia, who claimed that the cure for sterility or other sexual dysfunctions in women would be found in the application of electricity to their sexual organs, when, in the 1790s, he maintained that "the uterus may be stimulated by shocks passed through the pelvis" (qtd. in Delbourgo 118). Contrary to de la Peña's claims, then, it should be clear that by the time of Whitman's "body electric," the associations between sexuality, fertility, and electricity had already become commonplace, to the point where it was no longer easy to tell the difference between metaphorical sexual "electricity" and literal electricity had already become, in Delbourgo's words, "the vital force of sexual libertinism," as electricity already prevailed in sexual metaphors found in mid-eighteenth century literature

(117). In light of this long-standing association between electricity and human reproduction, the fact that both Elvis and Whitman would employ electrical imagery in association with their artistic performance—and, moreover, their "sexual libertinism"— should not only seem not surprising, rather, it should be fully expected.

When Whitman effectively associates "electricity" with sensuality and sexuality in *Leaves of Grass*, he further undergirds and strengthens the popularity of a cliché that would effectively erase differences between metaphorical "electricity" and actual, observable electricity. His strengthening of the popularity of this cliché would help to render it as common knowledge, albeit knowledge based largely on faulty reasoning. In an era where electricity was still relatively misunderstood by a lay audience, and in an era where divisions between metaphorical or pseudoscientific "electricity" and actual electricity were increasingly dissipating, it is not surprising that the use of medical electricity in the treatment of sexual dysfunction and infertility became less of a radical or unorthodox treatment among physicians and instead began to become more fully integrated into mainstream medicine by the late 19th century. Carolyn de la Peña puts it this way, however:

In his 1855 *Leaves of Grass*, Walt Whitman celebrated technology's physical possibilities by referring to "The Body Electric." Physicians sought to make the link more than rhetorical. (101)

What de la Peña misses is not only that Walt Whitman did not include the phrase "body electric" in his 1855 edition of *Leaves of Grass*, but also that by 1855, the

"link" between rhetorical "electricity" and understandings of how electricity might possibly be physically applied to the body in the context of medical practice was a link that had already been well-established in philosophical and medical circles, even if it was relatively little known by the general public. In other words, it was not that "physicians sought to make the link more than rhetorical," but, rather, that the link in many ways already *was* more than rhetorical.

The increasingly prevalent practice of applying electricity for a curative medical purpose in the late nineteenth century, as well as the increased marketing of devices that would serve such a purpose, was more a reflection of the continuation or evolution of logical progression in philosophies that would apply understandings of electricity to understandings of the body, a discourse that had begun well over a century before. That Whitman later chose to include the phrase "body electric" in a poem originally focusing on the slave trade may be indicative of a movement occurring on a large scale in American culture, whereby the link between "rhetorical" electricity and real electricity had already become increasingly invisible. While the term "the body electric" is by all accounts an original coinage of Whitman, it is rather emblematic of a larger philosophical movement which would increasingly understand the healthy, vital, virile, fertile body as "electric," and, subsequently, believe that the unhealthy, diseased, feeble, infertile body could be cured by electrical means.

From our current cultural standpoint, nineteenth century notions that read sexual dysfunctions as cured by electrical stimulation of the sexual organs might be giggle-inducing indeed, suggesting a naiveté of a bygone past that we have come to outgrow in our supposedly wiser, more technologically advanced age. Playwright

Sarah Ruhl certainly exploits this for comic effect in her recent smash Broadway play "In the Next Room," also known as the "Vibrator Play." In her play, women come to seek out the services of a medical electrician who believes that applying electricity to the female genitals will resolve any number of health complaints, by inducing a "paroxysm" that will help to induce the proper flow of blood and fluid to the affected regions of the body. The recurring joke of the play is that such "paroxysms" are in fact vibrator-induced orgasms of questionable, true, medicinal effect, but certainly productive of intense pleasure in the doctor's patients, who are, for their part, all too happy to volunteer to receive the doctor's services. At a time when the idea of the possibility of female orgasm was itself put into question, this is no laughing matter, however. The English doctor William Acton remarked in 1857 that "the majority of women...are not very much troubled with sexual feeling of any kind" (qtd. in Tosh 44). Acton thought that, unlike men, women did not truly experience orgasm, and, furthermore, did not particularly pursue sexual pleasure in the same way as men. While Acton's claims were not entirely embraced by the established American medical community, they were also not wholly rejected. Indeed, some American "experts" may have subscribed to similar ideas such as those expressed by Acton. The concept of female orgasm was then, at least among some "experts," a matter of debate. That the doctor of Ruhl's play would use the word "paroxysm" as a euphemism for orgasm without knowing himself that he was speaking euphemistically, is what helps to lend the play its funniest comic moments. The audience is in on the joke, while the doctor is blissfully unaware that what he is saying might be perceived as funny.

The premise of Ruhl's play is based on the very sincere and earnest beliefs of many late 19th century gynecologists and obstetricians, who, influenced by medical electricians, understood that women could be possibly "cured" of any number of conditions related to a perceived dysfunction of the sexual organs (including, incidentally the condition known as "hysteria," which at that time was often associated intimately with uterine dysfunction) by the application of electrical impulses to their genitals. One such medical electrician by the name of S. E. Morrill, wrote extensively on this topic in his 1882 "Treatise of Practical Instructions in the Medical and Surgical Uses of Electricity" in which he would essentially prescribe the application of electrodes to the pelvic area for any and all afflictions involving the female sexual organs. Writing for example on the process of how electricity could be medically applied to the vagina in cases where there was inflammation of the uterus, Morrill writes the following:

Electricity *will cure* all this class of diseases, both acute and chronic. My mode of treatment in these cases is to give general treatment all over the system, with the negative current attached to a plate, and the positive current attached to the vagina electrode, and introduced in such a way that the uterus is affected through the whole treatment of an hour for three successive days; the evening of the third day give a mild physic, and on the fourth day a vapor or electrical bath. This method changes the circulation, driving the surplus blood from the uterus. (132)

Essentially, just as 18th century mesmerists trained in the arts of "animal magnetism" would pass their hands over the body in order improve the circulation of bodily fluids, medical electricians of the late 19th century would apply electrodes to the body for similar effect, only replacing "magnetic" passing of the hands and playing of the armonica with actual electrical stimulation. And just as mesmerists produced "cures" in at least some of their patients (conceivably due to a placebo effect, we may speculate), so too did medical electricians produce "cures." Medical electricians produced enough purported "cures" to hold at least some sway among doctors who largely maintained more traditional practices in the field of gynecology and obstetrics. If Sarah Ruhl's play bears any resemblance to the reality of the time, however, we may surely begin to understand why medical electricians may have received such a positive response from at least some of their patients.

Not all late-nineteenth century doctors were nearly as enthusiastic as Morrill about the prospects of electricity as a panacea for gynecological ailments, however. For example, one particularly prominent Washington D. C. surgeon in the field of gynecology and obstetrics, Dr. Joseph Taber Johnson, indicated his lack of enthusiasm at a meeting of the Medical Society of the District of Columbia on Feb 13, 1895. While Johnson had himself "used electricity in proper cases," and, furthermore, "had relieved many patients in this way," he nonetheless acknowledged that "after patients had exhausted their purses and the patience of themselves and their relatives in efforts to obtain relief from electricity, drugs and massage they finally came to the surgeon and were cured" (43). Johnson's remarks came after his colleague, Dr. Francis Bishop, had commented on Dr. Johnson's general evaluation of the efficacy of

medical electricity when he had told Bishop that he "knew that no woman ever went to a masseur or electrician after coming from a gynecologist for there was little left to treat" (43). Despite such advice from Dr. Johnson, Bishop nonetheless maintained that "among virgins who would not submit to local treatment it was sometimes remarkable to see the good done from a general toning up of the system by electricity" (43). Even if electricity would not necessarily leave his patients "entirely cured," Bishop believed that it might at the very least revitalize their "system," relieve their pain, and improve their overall vaginal, intravaginal, or intrauterine "tone." Dr. Johnson, politely applauding Dr. Bishop as a "broad minded man who made use of all methods of treatment" went on to distance himself from such unconditional appreciation of the benefits of medical electricity in the field of gynecology.

Dr. Johnson was far less polite and subtle in expressing his distaste for medical electricity, however, in an article published in an 1896 edition of *The American Gynaecological and Obstetrical Journal*, in which he wrote the following:

The electricity enthusiast has yet to explain to us the powers of this "subtle and mysterious agent"—how it is that under their wishes or control it skips over or through all the tissues of the abdominal or vaginal walls, the peritonaeum and viscera, attacks and dissolves hard inflammatory products in the pelvis and solid fibroid tumors weighing ten or twenty pounds supplied with nourishing blood conduits as large as lead pencils. That it temporarily allays pain, arrests for the time the abnormal flow of blood, and proves a reviving and sometimes
exhilarating tonic to the exhausted nervous system, we are quite ready to admit, but the sooner the profession throws off the shackles with which our electrical brethren have been trying to bind us, as well as the too confiding public, the better it will be for the welfare of our patients and the credit of surgery. (20)

Regardless of the skepticism of doctors such as Dr. Johnson, the idea persisted that electricity was tied to vitality and sexual health. Just as mesmerists would pass their hands over the bodies of patients to regulate their bodily flows, so too would a trained medical electrician apply electrical current to the body to "unblock" flows of blood. While Dr. Johnson readily concedes that application of electricity could at least "temporarily" regulate blood flow, by "arrest[ing] the abnormal flow of blood," he also strongly feels that no amount of electricity will break up a large fibroid tumor, despite whatever claims the medical electricians might make to the contrary. For Johnson, surgery would be the only appropriate solution in such a case. That Johnson felt compelled to rail against the methodology of medical electricians in an established medical journal amply demonstrates just how prevalent such methods were among those in the medical community at that time. Johnson implies not so subtly that the "too confiding public" has been swindled by medical electricians, who would likewise resemble confidence men.

Johnson's position would eventually find sympathy with an overwhelming majority of the medical community over the course of the first decades of the twentieth century. The rising tide of medical electricity that surged in the late

nineteenth century medical practice would substantially subside in the coming decades, going the way of "patent medicines" and other "cures" of dubious medical effect that dominated so much advertising of the late nineteenth century. But, despite this shift in established medical opinion and practices, metaphors associating electricity with vitality, attractiveness, and sexual health endured and continued to hold sway in common use, as well as in popular culture.

To examine the continued hold that metaphorical "electricity" had on the American imagination, we might look to the example of Marilyn Monroe. One relatively little-known fact about the woman who came to be known by the public as Marilyn Monroe was that she suffered from endometriosis, a gynecological condition in which endometrial cells grow abnormally outside the uterus. It has been theorized that Monroe's endometriosis was in large part responsible for her infertility. Had Marilyn Monroe suffered from her condition just over a half century before, during the era in which Dr. Johnson practiced medicine, it is very possible that she could have been subjected to medical electricity as a "cure" for her condition. Had she been under the care of followers of the aforementioned Dr. Morrill, for example, she would have undoubtedly received a prescription of electrical current applied to her uterus, at a time when Morrill claimed in 1882, after reportedly having cured "nine out of ten patients treated in the last fifteen years," that his "new *method* of applying electricity...[would] effect a certain and permanent cure for all prevailing uterine diseases" (120). Incidentally, such "diseases" apparently included "nymphomania," which, at a time when female sexual desire was sometimes understood by physicians as abnormal, "amount[ed] to an actual insanity," to use the words of Dr. Morrill (120).

For Morrill, and those who would subscribe to similar philosophies, who associated electricity with sexual vitality while at the same time denying that the healthy female body would desire sexual gratification, it was understood that the application of electrical current would restore the uterus, or what Morrill called "the grand nucleus of womanhood" (128), to normal function.

Whatever Monroe may have thought about Dr. Morrill's more preposterous notions of the female body, she may have nonetheless found the idea of a non-surgical cure for her endometriosis and infertility appealing if such techniques had any proven medicinal effect. When Monroe was scheduled for an appendectomy in April 1952, she revealed her intense fear of hysterectomy, a surgery that may have been likely scheduled by nineteenth century surgical advocates such as Dr. Johnson—or, indeed, most twentieth century physicians—in a case as severe as Monroe's. Writing a note that she taped to her abdomen before the surgery, Monroe wrote the following to her surgeon, Dr. Rabwin:

> *Cut as little* as possible...The fact that I'm a *woman* is important and means much to me. Save please what you can—I'm in your hands. You have children and you must know *what* it means...For Gods [sic] sake Dear Doctor *No ovaries* removed—please do what you can to prevent large *scars*. (Spoto 218-9)

Despite her lifelong gynecological ailments, Monroe wanted desperately to have children, and she was afraid that the doctors might accidentally—if not purposely—

remove her "womanhood." Given her fear of surgery, Monroe may well have opted for a less invasive electrical therapy, had it been possible. But she lived in a time when electrical current was not applied to the uterus to cure "hysteria" or any other diseases associated rightly or wrongly with uterine dysfunction; rather, she lived in a time when electric shock was applied to the head in cases of suspected mental illness. Interestingly enough, the application of electricity for a supposedly medicinal purpose had not fallen completely out of favor by the 1950s—the main difference was the bodily location to which electrical current was generally applied.

Over a century before Monroe's entrance to the American public eye, Margaret Fuller suggested that men would fear the "electricity" of a woman, observing that those "women of genius...who seem overladen with electricity, frighten those around them" (67). Fuller would extol the virtues of women throughout history and mythology who, overflowing with electricity, would likewise be "*over*-flowed with thought." The "sickness" that would be the byproduct of such an "over-charged existence" would for Fuller be more than compensated by the intellectual and artistic vigor that would be found in such women, for whom the "electric fluid" could "invigorate and embellish, not destroy life" (67). Notably, Fuller offers an example of the kind of woman who might fit such a bill, observing that "such women are the great actresses, the songsters" (67). Had Marilyn Monroe been a stage actor in the early part of the nineteenth century, it might be understood by Fuller and others like her that Monroe possessed an abundance of electrical conductivity that was particular to women.

However, by the mid-1950s, "electricity" was not as associated with feminine intellectual vigor as it was with desirable affect, physical attractiveness, or sex appeal. Just as many fads that would embrace the pseudosciences of animal magnetism or medical electricity waned over time, so too did Fuller's belief that an "overcharged" existence would be an unhealthy attribute. While associations of "electricity" with vitality and life-giving force continued to resonate with the general public in the twentieth century, the idea that being "overcharged" was dangerous diminished in its influence. In an "electric age," where the introduction of electricity and its accoutrements to homes represented a modern marvel, more "electricity" seemed better. To be supercharged with electricity—or, to put it another way, superconductive of electricity—would, at least in a metaphorical sense, become a desirable attribute. Moreover, the pseudoscience that would correlate the presence of corporeal electricity with sexual health had by the mid-twentieth century in large part given way to the continuation of a cliché traceable to the mid eighteenth century, whereby "electricity" was associated with a certain "sexual libertinism." Elvis and Marilyn, both of whom would represent in their persons some sexual liberation from the trappings and residue of a supposedly sexually repressed Victorian era could, when packaged and sold as "bodies electric," likewise stand for exactly such "sexual libertinism."

When understood in terms of historical context, the ironies and contradictions of Marilyn Monroe's supposed bodily "electricity" are profound. As electronic images of her body danced and glided across American movie screens during the 1950s, projecting her vibrant and "electric" sexuality and vitality, she suffered

intensely from the severe pelvic pain brought on by her endometriosis, a condition that not only left her infertile, but also made sexual intercourse a painful experience. While in the previous century she might have been treated for her condition by the application of electrical current to her uterus, supplementing her supposed lack of corporeal electricity, in the mid-twentieth century the only viable option for treatment was surgery, which could potentially excise from her body everything that to her understanding made her truly a woman, her "life-giving force." As Monroe grieved her continued infertility, a state of health that in bygone decades would have previously been understood as a lack of electricity or "vital fire," filmic simulations of her body were adored by fans who would appreciate her sex appeal in terms of its supposed "electricity." The chasm between the virtual, simulated, "electric" body of Marilyn Monroe, a fantasy projected on screen, and the real, suffering, human body of the former Norma Jeane Baker—which, like any other human body, produced its own very real electricity—was a wide one.

Yet during her lifetime, references to her bodily "electricity," read as a catchall term to capture an ineffable quality of attractiveness and appeal, abounded. Monroe biographer J. Randy Taraborelli gives a perfect example of this when he relates an anecdote regarding a 1948 encounter between Monroe and Twentieth Century Fox president Joe Schenck. After being introduced briefly to Schenck in February of that year, she was invited at an after hours party at Schenck's house, attended by would-be Hollywood debutantes willing to offer sexual favors in order to gain notice in the industry. According to this account, the party ended with her having sex with him against her better judgment, because she believed it would launch her

film career—a belief that, while cynical, was somewhat true: Schenck would eventually persuade Harry Cohn to look at her screen tests, a move that eventually landed her a contract at Columbia Pictures. Of this encounter, she is reported to have said that it was "like giving up her soul." Schenck, on the other hand, is reported to have said that the aspiring actress "ha[d] an electric quality...she sparkles and bubbles like a fountain." Later, after Monroe had already achieved notice and success in the film industry, June Haver, Monroe's fellow actress in the 1951 film Love Nest, spoke of her in terms uncannily resembling the words of Schenck, noting upon watching her perform a scene or interacting with others that she had an "electric something" (qtd. in Rollyson 42). For Haver and others, not only was her "electricity" something that could purportedly attract or mesmerize anyone who met her in person, but it was something that could somehow be transmitted even through the medium of film, via her image, her virtual body. Promoters capitalized on this perception by aligning her body with "electrification." We may find evidence of this, for example, in promotions for the 1953 film Niagara, whose trailer contained the slogan, "Niagara and Marilyn Monroe: The two most electrifying sights in the world!" (Boyer 139). Not only were the two spectacles sublime, but in their sublimity, they could also electrify. Given the fact that Niagara Falls had actually been used as a source for hydroelectric power since the late 19th century, the analogy may be understood as more than merely metaphorical.

Such references to Monroe's "electric" qualities, both in person and on film, would continue well after her death in 1962. Monroe scholar and biographer, Lois Banner, explains this, for example, when relating her experience as a high school

student who had the rare opportunity to snap photographs of the movie star at a benefit event: "I found something magical about her as she strutted in front of my camera. She generated an electrical charge with each click of the shutter." Literary critic Diana Trilling, identified by Monroe scholar Carl Rollyson as the "first woman to recognize in print that Marilyn Monroe stood for a feminine vitality that was highly unusual," similarly offers a depiction of the electrical effect that Monroe could generate or radiate, something like "a glow beyond the ordinarily human," when she says that "…no picture could quite catch her electric quality; in posed pictures the redundancy of flesh was what first imposed itself, dimming one's perception of its peculiar aliveness, of the translucence that infused the body with spirit" (qtd. in Rollyson 61). From depictions such as those of Banner or Trilling, we are to understand that Marilyn Monroe "generated" or "radiated" so much "electricity," so much of a "glow" of "aliveness" from her body, that the photographer behind the lens could only hope to capture a small glimpse of it, if at all.

Were Banner and Trilling identifying and observing a very real phenomenon, an aura of electromagnetic energy so powerful that it actually appeared to generate some visibly perceptible light or heat? Or are they so smitten by her that they get carried away by their own metaphors, blithely losing track of any difference between what is real and what is imaginary? Are they witnessing a spectacle that we could scientifically measure and observe, or have they already been so sold into believing in the marketing of her body as somehow "electric"—or, moreover, the marketing and popularization of "electricity" as a positive bodily attribute—that this is the highest compliment they can think to convey? Given the blurring of such lines by writers

such as Whitman—and, moreover, those who would market and sell his work—it is possible that their thinking is informed by antebellum and late nineteenth century American discourse, whether they know it or not.

We may hear further twentieth century echoes of Emerson, Fuller, Melville, Whitman, and other antebellum American writers who employed tropes of corporeal electromagnetism, when we consider the following anecdote from an interview carried out with her close friend, the novelist Saul Bellow:

> She was like somebody who picked up a high voltage wire and then couldn't get rid of it. She was connected with a very powerful current but she couldn't disconnect herself from it. You often felt she was supercharged. (qtd. in Grobel 14)

Interestingly enough, Bellow does not associate Monroe's "supercharged" state with her sex appeal. In fact, when asked directly about her sexual attractiveness, he replied that he "felt no sexual attraction" for her, even though he found her "too beautiful to be real," with a "curious incandescence under the skin" (14). For Bellow, Monroe is so beautiful that she seems—if not superhuman—not human at all, not somehow "real." But if she is not a "real" human being, then what might she be? An automaton? A cyborg? An ethereal unearthly fantasy? Had Bellow been so charmed by her presence or mesmerized by the ubiquitous electric moving images of her that he could truly not recognize his friend as a living human being in the flesh? Or was he simply taking poetic liberties and merely exercising hyperbole and figurative

language? The difficulty one may encounter in answering such questions with absolute assuredness offers insight into exactly how slippery the concept of "electricity" had become by the twentieth century.

Given that Bellow's acquaintance with Monroe stemmed from her avid pursuit of knowledge, and, in particular, literary knowledge, a pursuit that culminated in her marriage to the novelist Arthur Miller, she may in this light have much in common with the model of the "over-charged" woman depicted by Margaret Fuller in Woman in the Nineteenth Century. Not only was she attractive, but she also possessed intense ambition to be well-read, to attain wisdom, to be an intellectual in the literary sense, all attributes well-documented in recent biographies such as that of novelist and shortstory writer Joyce Carol Oates. Might Fuller have likened Monroe to Justinus Kerner's "Seeress of Prevorst," who was in her words "roused to ecstacy or phrenzy by the touch of the laurel" (69)? Monroe's supercharged state was not only a metaphor for her intense power to attract due to her physical appearance, but it was also indicative of her naturally conductive powers, as she possessed a superconductive or "superexcitive" quality that was beyond her control. It is as if she were compelled, like Percy Bysshe Shelley's "Sensitive Plant," to draw to herself everything beautiful in her atmosphere and environment. But whereas Shelley's "plant" would draw to itself all that was beautiful and radiant without being itself beautiful or giving off radiance, Monroe's supercharged or superconductive body would be for Bellow precisely what would make her inexplicably attractive, and even radiant, in a way that surpassed mere physical beauty or sexual attraction.

But this "supercharged" state of being was for Bellow not only a source of Monroe's strength; it could also be a cause of weakness. As was the case for Fuller's "over-charged" woman, her condition could not only be a marker of health, but could also be an origin of sickness. Bellow explores how Monroe's "supercharged" condition could be damaging to her health when he speaks in similar terms in a different interview, this time replacing the imagery of the "high-voltage wire," with the phrase "high tension cable":

I always felt she had picked up some high-tension cable and couldn't release it...She couldn't rest, she found no repose in anything. She was up in the night, taking pills and talking about her costumes, her next picture, contracts and money. In the case of a beautiful and sensitive creature like that, it was a guarantee of destruction. (qtd. in Clemons and Kroll 130-1)

Bellow's description is telling in that it reveals similarities between Marilyn Monroe and Elvis Presley that go beyond their massive stardom and untimely deaths. It shows that she was not only perceived as "electric" by close friends and the public alike, but also that her performance of "electricity," of being "electrifying," led ultimately to her self-destruction, in the form of sleep deprivation and drug abuse—both issues, incidentally, that plagued Elvis throughout his career.

While Bellow would infer that Marilyn Monroe's "sensitivity"— her natural and inherent conductivity—was responsible for her attraction to unhealthy and self-

destructive behavior, it may instead be that her own self-conscious desire to be "electric" in the public eye was in part responsible for her restless and reckless actions. Such desire would not be surprising in a culture that would place inherent value on bodily "electricity," in which she would feel compelled to maintain this artifice, if, in fact, she realized that it was an artifice at all. In embodying "electric" qualities on screen, "Marilyn"—or more precisely, the electronic image of her body—had become a commodity that was voraciously bought, sold, and packaged. But in the age of modern media, when distinctions between image and imaged became increasingly blurred, that which was imaged or commodified might be understood as possessing precisely the same qualities or characteristics imagined or embedded in the image or commodity.

According to such logic, a supposedly "electrical" body on screen should thus reflect an actual "electrical" body in person, and vice versa. Forgetting that the "electrical" qualities of the onscreen image were themselves imaginary might then create an irreconcilable situation, whereby the person in possession of the imaged body might imagine—or be imagined—as possessing the same imaginary traits. In this way, the image of the "electric" body, which for Whitman seemed to mean in its fluidity a certain freedom from the limits of subjectivity as well as a pathway toward unraveling the arguments of chattel slavery, could become transformed in the twentieth century into a force that could enslave. Truly to believe that one is "superconductive," and thus compelled toward destructive behaviors as a result, suggests a lack of agency and free will, and a predisposition toward certain inevitable and even self-destructive ends. Moreover, if a celebrity such as Monroe believes in

her own "superconductivity," and also believes that in order to replicate the "electric" qualities desired on screen her body must somehow be marked as "electric" or susceptible to being overcharged (and therefore naturally subjected to an involuntary conductivity of forces that prevent her from choosing to let go of "the high-tension wire," to borrow Bellow's phrase), then her self-destruction seems further inevitable, as a sort of self-fulfilling prophecy. She is doomed to die an early death, because of a predisposition to fly, like Icarus, too close to the sun. Such a proposition seems patently false. But the propagation of the "body electric" trope through the media could also, in inspiring others to believe such false propositions, further propagate the notion that imaginary bodily "electricity"—becoming like the "electric" body on the screen, or transmitting "electricity" like the onscreen image—is something achievable or desirable in fact.

Writing on one of the effects of what he called the "electric age," Marshall McLuhan wrote that "in the new electric Age of Information and programmed production, commodities themselves assume more and more the character of information" (171). Given that in this same "electric age" bodies—or more precisely, images of bodies—became increasingly commodified, we might likewise ponder how these same bodies or images of bodies have come to "assume" the "character of information." While Whitman, Hawthorne or other nineteenth century thinkers could only dream of how individual bodies could become information circulating fluidly, like electricity, in the public sphere, for those of us today, such a phenomenon has become more of a reality. Elvis Presley and Marilyn Monroe are valued not only because their personal "electricity" could be witnessed and felt by their audiences (an

idea which, as we have seen, evokes eighteenth and nineteenth century discourse on the body), but they are valued because their personal "electricity" was of such magnitude that their bodies have been chosen to be translated into forever circulating electric images. Their bodies become virtual bodies, bits of digital information continuously flowing in the virtual plane of existence known as "cyberspace." It is not enough that Monroe's supposed "electricity" so great that she received a motion picture contract to have her body photographed, filmed, and rendered for public viewing in her own lifetime. Now, at the mercy of digital technologies, images and interpretations of those images can be circulated, recirculated, and made immortal in a never-ending, infinite cycle, so that they might be replayed to simulate their "electric" effects again and again, long after her death, and long after the original photographs and films have decayed and deteriorated. Thus we are left not only with Andy Warhol's multicolored interpretations of the image of Marilyn Monroe's face, but with endless productions and reproductions of Andy Warhol's images of Marilyn Monroe, each of which might conceivably multiply the potential "electric" effects of the original. The body may then transform into circulating "information" which can then be further commodified, marketed and sold by those who might profit from such reproductions. This development represents a new stage in the history of reproductions of works of art, a stage that Walt Whitman, or, later, Walter Benjamin, would never live to see. While Walt Whitman lauded a shell-less existence, an electric existence free of the limitations of physical, mortal bodies, he could not begin to envision fully how twentieth-century technologies of reproduction would, in the words of Benjamin, "pry an object from its shell," and, by so doing, "destroy its aura"

(223). By the same token, Benjamin could have never fully dreamed of how twentyfirst-century digital technologies of reproductions would make "destruction of aura" so easy and efficient, just as these high-definition reproductions become so life-like that it becomes increasingly difficult to distinguish the difference between the original and the copy.

In this sense, the technological innovations of the "electric age" or the "Age of Information" have allowed for a certain immortality—or, at the very least, virtual *immortality*—that in some ways exceeds what was imagined in the nineteenth century, while in other ways resembling what was imagined at that time. While Walt Whitman could only imagine through the trope of "electricity" how the body could flow between different subjectivities in ways that would erase the limitations of mortal experience, our current moment finds us discovering and witnessing how such imagination can actually find fruition in more concrete and realistic ways. In an "electric age," the ultimate tribute to one's bodily "electricity" would be having one's image electronically transmitted, so that the "electricity" of that body could be played and replayed, publicized and shared for its "electric" effects, so that that body, or at the very least, its image, could achieve a kind of immortality. In our new "electric age," the private, individual body of a celebrity can no longer be merely conductive and transmissive of "electricity" during his or her lifetime; rather, that celebrity's virtual body must also become publicized as a contribution to-and part of- a greater public "electricity," or, as Hawthorne might put it, an "all-pervading intelligence." In the nineteenth century, such immortality could only be approximated by the massive circulation of one's written or telegraphically transmitted words, the "electricity" of

one's experience translated into prose or verse that could recreate or simulate its power for readers, even well after the death of the composer of the words. To put this another way, if Whitman's publishers could convince a quorum of potential readers that he was indeed "electric" and his words had an "electric" effect, then his verse could continue to "electrify" for generations to come. But in an age of digital streaming media, holographic images, and virtual reality, such recreations or simulations of "electric" experience become increasingly convincing in their reality, as they became no longer nearly as two-dimensional and objective, but rather increasingly multi-dimensional and subjective. The "electric" and "automatic" writer, composer, or performer can then automate—and animate— future "electric" writings, compositions, or performances.

Commenting on the aforementioned passage from Hawthorne's *The House of Seven Gables*, Marshall McLuhan wrote the following:

> When people are on the telephone or on the air, they have no physical bodies but are translated into abstract images. Their old physical beings are entirely irrelevant to the new situations. The discarnate user of electric media bypasses all former spatial restrictions and is present in many places as a disembodied intelligence. This puts him one step above angels, who can only be in one place at one time. (370)

We may see how this phenomenon plays itself out in the examples of Marilyn Monroe and Elvis Presley. In our new "electric age," the image of the "electric" body and the

consumer of that image meet in a virtual space that in many ways resembles a "disembodied intelligence." When we watch a Youtube video of the Aloha from *Hawaii* concert, we might simulate the experience of being a live spectator of the original concert, or a live spectator of the satellite broadcast somewhere on the globe. Translated into an endlessly replayed electronic image, Elvis is rendered superhuman and even god-like, able to transcend limitations of time and space in a constantly replaying loop of "electricity." Through this process we too become superhuman in a sense, able to travel backwards in time and experience the "electricity" that Elvis would generate and radiate, as if we were there inhabiting that moment in time. In this way, as both Elvis and his spectators simulate the superhuman, they may also become both sacred and sublime, as they surpass even "angels" in their physical abilities and capacity to inspire awe. But again, we must remind ourselves that such fanciful thinking is only the product of a simulation. It is not that users of the new digital media actually "have no physical bodies" but that it is as if they "have no physical bodies." It is not that their bodies "are entirely irrelevant," but it is as if they "are entirely irrelevant." To take this a step further, it is not that their bodies become "electric," but is *as if* their bodies become "electric."

As we should have already seen thus far, the ongoing human quest for bodiless embodiment, inspired by the science of electricity that emerged in the mid-eighteenth century, was not a quest only endemic to the "electric age," read by McLuhan as chiefly the twentieth century era in which electricity and electronic media were first introduced to homes and businesses. Rather it was a quest also endemic to the supposed "pre-electric age," one most certainly imagined by nineteenth century

writers such as Emerson, Melville, and Whitman. As McLuhan indicated in a 1977 interview, "when you look in the rear view mirror, you do not see what has gone past...you see what is coming." This conceptualization of the "rear view mirror" aptly describes this phenomenon.

What Whitman and others in the nineteenth century may not have anticipated, however, might be some of the specific technologies through which disembodied embodiment could become somehow concretized. Nor is it necessarily true that Whitman and others could have anticipated some of the effects of such technologies. Today, for example, we may experience, for example, the performance of the holographic image of the body of Elvis performing "If I Can Dream" from the 1968 comeback special, performing a "virtual duet" with Celine Dion (born, incidentally, in 1968) singing alongside him, on the popular television program *American Idol.* The "virtual duet" allows Elvis, almost like Frankenstein's monster, to "come back to life," at least in the virtual sense. The performance can be reproduced endlessly, through countless repetitions of Youtube viewings, in which Elvis can return to life again and again, at the will of the user clicking a mouse. The two performers can continue to share their "electricity" with the globe, even long after Celine joins him in the ranks of posthumously honored celebrities.

Within the confines of virtual space, the virtual body of Elvis can continue to "electrify" as it is captured and witnessed in its physical prime, freed from the physical limitations that would cause his body to become ravaged by drug abuse and attendant health problems. Yet this image of the body is simultaneously enslaved to a market and a public hungry for new sources of "electrification," as it is processed and

manipulated, marketed and sold, without the wish or blessings of the performer himself. In this process, the actual human sufferings of that body can be forgotten or rendered irrelevant by a generation not even born by 1968, the time of the original performance, or by 1977, the time of the singer's untimely death on the bathroom floor of his home at Graceland. Moreover, the original performance can be taken out of its historical and cultural context, namely as a response to the assassination of Martin Luther King, heavily nodding to the African-American gospel genre, pleading for racial equality and understanding in a time of significant violence and unrest around the civil rights movement. Instead, the performance can be transplanted into a different time and place, to an age that at least some Americans of a newer generation might refer to as somehow "post-racial," where King's vision and "dream" had been already somehow achieved. In this way, the electronically projected image of the body of Elvis would effectively sanitize or elide some of the more supposedly ungainly aspects of Elvis' body, as well as those of his cultural and historical moment, if not also those of our own.

The same may be said of images of Marilyn Monroe. Communications scholar Lynn Spigel captures this phenomenon perfectly when, specifically referring to futuristic technological manipulations of images of Monroe, she writes that "in contemporary culture, the dream of social interconnection through antiseptic electrical space is still a potent fantasy" (53). Spigel focuses on a 1989 article in *Life* magazine entitled "The Future and You," in which it was imagined that a holographic image of Marilyn Monroe could emerge from the television screen into a living space occupied

by an enthralled male viewer, who was for his part equipped with a La-Z-Boy recliner and a remote control. Musing on this futuristic fantasy, Spigel writes that

...this form of home entertainment was just the latest version of the older wish to control and purify public space. Sexual desire, transported to the home from the Hollywood cinema, was made possible by transfiguring the celluloid image into an electrical space where aggressive and sadistic forms of cinematic pleasure were now sanitized and made into "passive" home entertainment. (53)

For Spigel, the electrification of images of Marilyn Monroe's body and the entrance of such images into the context of the comfortable, tame suburban home through the means of modern or futuristic technology would "sanitize" what would otherwise be a sadistic and even pornographic form of objectification of the body under the influence of an "aggressive" male (read heterosexual) gaze. That may be so, but such a reading also misses a larger point, that being that such electrified images of Monroe's body would also "sanitize" the body itself, restoring to virtual health, vitality and beauty a long-dead body that had succumbed to very real suffering in the form of endometriosis, depression, and barbiturate addiction, among other maladies. Through the futuristic technology of the "electric age," the very real body of the former Norma Jeane Baker is rendered irrelevant—with any perceived imperfections smoothed over, airbrushed, or photoshopped away—while the virtual body of Marilyn Monroe could be subjected to the performance of virtual sexual favors at the whim and discretion of

the user possessing the remote control. While the real Marilyn Monroe may have never consented to such activity, the virtual Marilyn Monroe can be forced to do so, and can continue to do so, and, moreover, the actions between the virtual Monroe and her user, or users worldwide, could be continually replayed and re-enacted *ad infinitum*. While it was Marilyn Monroe's supposed bodily "electricity" that brought her body to be filmed and recorded in the first place—and, moreover, which brought her body and no other to be the subject of this particular fantasy—the electronic images of her body would be manipulated, marketed, sold, and used without necessarily any regard for her actual body. In short, she may become the object of virtual rape. In this way, the virtual electrification of the body into an incorporeal form lacking definite or static subjectivity may engender consequences contrary to the liberation or celebration of the body foreseen by Whitman in "I Sing the Body Electric."

Of course, many of the arguments presented thus far have relied on the notion that there is indeed a difference between imaginary corporeal electromagnetism and actual corporeal electromagnetism. The former has been used so frequently and so variously over the centuries as a metaphor that the many attributes that would be associated with it—vitality, vigor, health, wisdom, fluidity, fertility, power, danger, excitement, newness, freshness, attractiveness, etc.—are too numerous and exhausting to list in full. The latter, a trait we now know is common to all human beings, would have a completely contradictory effect, rendering the concept rather mundane and ordinary. Given this apparent contradiction between imaginary corporeal electromagnetism and real corporeal electromagnetism, we might assume that no

overabundance of actual inherent corporeal electromagnetism or electromagnetic conductivity could actually improve anyone's health or their ability to attract others, nor would it be indicative of any individual's particular genius, despite the playful imaginings of Emerson and other thinkers of the nineteenth century who might lead their readers to think otherwise. But could it be possibly true that some people are in fact more electromagnetically conductive than others, and if they are, could they be somehow more able than others to transfer and transmit their electromagnetic energies? And if so, what would that mean? Would they be more enlightened? Would they be more attractive? More vigorous? Is it possible, for example, that what Saul Bellow and others saw in Marilyn Monroe could in fact be something real, and not just a metaphor or a product of the imagination?

It is well established that while the human body is not a particularly good conductor as compared to other substances or materials, some human bodies are indeed more electromagnetically conductive than others. Some have taken this fact to explain paranormal activity such as that of reported cases of human spontaneous combustion, or that of sufferers of Street Light Interference (SLI) syndrome, otherwise known as SLIders, who, because of their supposedly supercharged or superconductive bodies, can unconsciously wreak havoc on electrical devices in their immediate environment just because of the sheer electromagnetic energy generated or transmitted from their bodies. It may be easy to dismiss such claims as the product of quackery, as twenty-first century reincarnations of nineteenth century electromagnetic pseudoscience, whose propagation is fueled by profiteers who would sell books, films, or products that would explore such theories and exploit those naïve enough to buy

into them. That may very well be so. However, some reputable scientific researchers today would stand by claims that would have been absurd to skeptics of nineteenth century pseudoscience. For example, while electroshock therapy was largely abandoned as a therapeutic practice for mental health patients in the mid-twentieth century, it has now returned to favor among at least some mental health professionals, this time under the name "electroconvulsive therapy," in treating forms of mental illness unresponsive to other forms of treatment. While Dr. Johnson and other late nineteenth-century physicians may have scoffed at the potential benefits of electrical stimulation of the pelvic area in the treatment of conditions affecting the female sexual organs, recent scientific studies have proven the efficacy of such treatment in certain cases—for example, in cases of urinary incontinence in women. And while debate continues among psychiatrists as to whether drugs commonly employed to treat depression or bipolar illness are necessarily particularly more effective than placebos, some recent studies have claimed that receiving magnetic resonance imaging (an "MRI") could have a positive therapeutic impact on such patients, revealing some correlation between electromagnetic activity in the brain and possible mental dysfunction. Some theorists have even contended that consciousness itself is an electromagnetic phenomenon.

Meanwhile, researchers in neurology have identified a specific neuron in the brain that has been dubbed the "Marilyn Monroe" neuron. Working with patients suffering from severe forms of epilepsy who were candidates for neurosurgery, researchers from California attached electrodes to different neurons in the hippocampal region of their patients' brains and projected on a screen images of

various celebrities from which they could choose. The goal of this research was to see if these patients could use various parts of the brain to control the image that appeared on the screen. Images of celebrities were paired, and depending on which neuron in the brain fired, patients could "choose" which image of the two appeared on screen, trying to force their brain to make one image dominate their thoughts. If one neuron fired more than another, one picture would slowly fade to replace the other, until one picture completely dominated the field, and the other had completely disappeared. What was accidentally discovered over the course of this research was that patients tended to select the image of Marilyn Monroe over those of other celebrities. Writing emphatically about this phenomenon, John K. Young exclaims that the researchers "found single nerve cells...that reacted to a picture of Marilyn Monroe!" Young goes on to write that "these same nerve cells reacted to Monroe's voice or the mention of her name but did not react to the features of other people." Could it be that images of her body are so ubiquitous and so embedded in the public consciousness because of their incessant replication by modern media that the brains of these patients were destined to default to that choice as a result, as a dominant or over-riding thought? Or is it that there is something particular to Marilyn's face that gives it a particular power to affect the electricity of the brain? In other words, is it that her electromagnetic energy was truly so powerful and had such an impact on the consciousness of those around her that the urge to photograph and record her body in the form of an image was simply irresistible? Or is it that our brains have been so inundated my media depictions of the idea that her face and body somehow represent everything that is desirable and attractive—attributes metaphorically associated with electricity—that

gives her image such a power over our brains, and more specifically, the firing of neurons in our brains? Would an image of a Marilyn lookalike have the same power to dominate our thoughts? Or would our brains recognize that only an authentic image of Monroe should cause the firings of neurons to occur? Such questions are difficult to answer without the benefit of further research and experimentation.

We might wonder what different results might be produced by experiments that would examine the brain's neurological activities when presented with different voices of famous orators, or different passages composed by famous poets. Could it be proven that orators, artists, or poets who are marketed and sold as somehow more "electric" than others, such as Walt Whitman, could in fact have more of an electric effect on our brains? For example, would our neurons "choose" a passage from "I Sing the Body Electric" over a piece of randomly selected doggerel, composed by an anonymous kindergartener? And if so, would this be because we have been so moved by the power of suggestion that the "Body Electric" is in fact somehow electric that it might produce an actual electrical neurological effect, as a kind of self-fulfilling prophecy? Or would it be because the poet's inherent "electricity"—his vitality, enlightenment, sexuality, or level of intellectual stimulation— somehow comes off the page of written words, transmitted and transferred to us, transcending chasms in time and space to effect changes in the electromagnetic impulses of our brains? Could this "electrical" stimulation in turn stimulate us to effect changes—*electrical changes*— in others?

Speaking of the inspirations for her music, pop star Lana del Rey, 26 year old composer and performer of the 2012 song "Body Electric," gave the answer that

should be obvious: Walt Whitman. Of Whitman, and his twentieth century devotee, Allen Ginsberg, she said "[they] are like my first and last inspirations, the first people I saw that made their words really electric and come alive off the page, really visual writers." Her word choice is telling. When she says that Whitman "mak[es] [his] words really electric," is she speaking figuratively, are we to understand that she truly sees no difference between the literal and the figurative? Does she truly think that Whitman's words are, in fact, "electric," i.e. infused with an electrical charge? Or have the literal and figurative senses of the term become so blurred and clichéd by the twenty-first century that she cannot distinguish between the two? Are they, in fact, distinguishable? When the words "come alive off the page," does this mean that they are otherwise dead language somehow brought to actual life, a veritable Frankenstein's monster? Or have they somehow metaphorically "come alive" in her, reanimated and reactivated through synthesis with her own experiences?

Leaning heavily on overt appropriation of Whitman's work—and his supposed "electricity"—Lana del Rey stands near the end of a long line of those who would lean on common electrical tropes in order to package and sell a product for personal gain, those who, like the lightning-rod man of Melville's short story, would "driv[e] a brave trade with the fears of man." Unfortunately for del Rey, not many consumers were willing to buy the product she was selling, as the song never charted in the US and topped the French charts at #103. It did not help that the song came on the heels of a January live performance on *Saturday Night Live*, widely panned as one of the worst performances ever on the program. Critical reception of Lana del Rey's work in the song, as well as the album it came from, *Paradise*, was at best largely unsympathetic,

at worst, blistering and ruthless. Allmusic.com's John Bush singled out "Body Electric" in particular for the clichéd quality of its lyrics, writing that it exemplified her tendency to compose lyrics made up of "clichés and baby talk," and observing that "her songwriting appears to be in stasis." Leonie Cooper of *NME* called the song a "heady concoction," but added that the singer was "tottering around the edges of selfparody on this latest offering of simmering Stepford symphonics," which was "intoxicating," but only in the sense of it being "like swigging a bottle of Chanel No. 5." Noting that del Rey has developed a reputation for having "lyrics that tend to run on the sophomoric side of things," Deathandtaxes.com's Alex Moore wrote that her live performance of the song at the El Rey Theater in Los Angeles actually drew an "Oh Please,' from a nearby audience member" after her lyrics made her "soun[d] like a literal sophomore just discovering Walt Whitman." It is as if del Rey chose "electricity" and Whitman's "I Sing the Body Electric" as central themes of her song in order to engender and generate "electricity" in her crowd responses, but actual produced an opposite effect. Rather than bringing audiences to marvel at her supposed "electricity," she instead inspired a comparison between her own body and that of a "Stepford wife," a beautiful but not quite human automaton, gears clicking away like an Animatronic figure, without necessarily dispelling anyone's suspension of disbelief. Whereas Marilyn Monroe would be praised for her incandescence and electricity for being somehow not quite fully "real," Lana del Rey would be criticized for her blandness and mundanity, while also ironically characterized as somehow not quite fully real or human. As she performed the song for the first time live in Los Angeles, colorful lights shimmered and flashed provocatively upon her body in

electrical bursts, as she stood almost motionless, moving almost nothing but her mouth, while images of an unidentified female figure flashed on the screen illuminated behind her. Her performance—stiff, static, and dirge-like— was as near as could be to the antithesis of the animated, enthusiastic, arm-swinging, almost tearful performance of Elvis Presley in the finale to his 1968 comeback special.

But given the prevalence of the clichés of electricity over a time spanning over two and a half centuries, should we be surprised when a song that leans heavily on electrical metaphor is anything but clichéd? Should we be surprised that Lana del Rey thinks that by invoking the word "electric" and the memory of Walt Whitman, she could somehow reanimate those clichés and collect all the accolades that would supposedly come with them? Should we be surprised that when yet another new face emerges among the deluge of faces poured on the public each day through endless streams of digital media, that she becomes instantly forgettable, despite her attempts to "electrify" and be unforgettable? How can she be "electrifying" as Elvis or Marilyn, performing for people with senses weary and exhausted from the over-stimulation of too much screen time? Is it even possible? Or is her genius in her self-awareness of all this, her artistic decision to perform in this static, clichéd, decidedly un-"electric" way anyway?

Del Rey's lyrics do appear to be clichéd, that much is true:

Elvis is my daddy, Marilyn's my mother,/Jesus is my bestest friend./We don't need nobody 'cause we got each other,/Or at least I pretend.

Given our understanding of the vast and complex discursive arc that informed the way that "electricity" informed the 20th century construction of the images of Elvis and Marilyn (and Jesus, for that matter), we might well look in the rear view mirror. If we do, we may see how Whitman's "body electric" has become transformed, for better or worse, into Elvis and Marilyn in our current cultural moment, as inescapable clichés that might inform our very own existence, embedded in our very neurons. Would we assume that becoming "electric" would be somehow better, more desirable, more exciting, more attractive than our own ordinary electric bodies? Would we base our identities on false notions of embodiment, constructed and reconstructed through an endless stream of representations and images, calling to attention our own supposed lack of worth, our need for "electrification" through products that would be sold to us, the vibrators, bracelets, and modern-day lightning-rod umbrellas, that would make us somehow safer, better, or more fully human? Would we pretend that in our avatars, in our virtual, electronic, digital bodies presented to the public, that we are somehow better than our bodies, by smoothing out all the lines and moles, eliding all the dysfunctions and arrythmias, and erasing and sanitizing all the physical and mental attributes that make us who we are? In these and other ways, Elvis and Marilyn are the "daddies" and "mothers" of us all.

APPENDIX 1

Henry David Thoreau's Journal Entry from June 27, 1852¹³

June 27,1852. P. M. To Bear Hill, Lincoln. The epilobium, spiked willow herb, shows its pale purple spikes (pinkish?). I will set it down to the 20th. *Epilobium angustifolium*, one of the most conspicuous flowers at this season, on dry, open hillsides in the woods, sproutlands...I still perceive that ambrosial sweetness from the meadows in some places. Give me the strong, rank scent of ferns in the spring for vigor, just blossoming late in the spring. A healthy and refined nature would always derive pleasure from the landscape. As long as the bodily vigor lasts, man sympathizes with Nature.

Looking from Bear Hill I am struck by the yellowish green of meadows, almost like an ingrained sunlight. Perhaps they have that appearance, because the fields generally incline now to a reddish-brown green. The freshness of the year in most fields is already past. The tops of the early grass are white, killed by the worms.

It is somewhat hazy, yet I can just distinguish Monadnock. It is a good way to describe the density of a haze to say how distant a mountain can be distinguished through it, or how near a hill is obscured by it.

Saw a very large white-ash tree, three and a half feet in diameter, . . . which was struck by lightning the 22d. The lightning apparently struck the top of the tree and scorched the bark and leaves for ten or fifteen feet downward, then began to strip

¹³ The text given here is taken from the edition as it was transcribed and published in *Summer: From the Journal of Henry David Thoreau*, edited by H. G. O. Blake.

off the bark and enter the wood, making a ragged, narrow furrow or crack, till reaching one of the upper limbs it apparently divided, descending on both sides and entering deeper and deeper into the wood. At the first general branching it had got full possession of the tree in its centre, and tossed off the main limbs, butt foremost, making holes in the ground where they struck, and so it went down in the midst of the trunk to the earth, where it apparently exploded, rending the trunk into six segments, whose tops, ten or twenty feet long, were rayed out on every side at an angle of about 30° from a perpendicular, leaving the ground bare directly under where the tree had stood, though they were still fastened to the earth by their roots. The lightning appeared to have gone off through the roots, furrowing them as it had furrowed the branches, and through the earth, making a furrow like a plow, four or five rods in one direction, and in another passing through the cellar of the neighboring house, about thirty feet distant, scorching the tin milk-pans, and throwing dirt into the milk, and coming out the back side of the house in a furrow, splitting some planks there. The main body of the tree was completely stripped of bark, which was cast in every direction, two hundred feet, and large pieces of the inside of the tree were hurled, with tremendous force, in various directions, — one into the side of a shed, smashing it, another burying itself in a woodpile. The heart of the tree lay by itself. Probably a piece as large as a man's leg could not have been sawed out of the trunk, which would not have had a crack in it, and much of it was very finely splintered. The windows in the house were broken and the inhabitants knocked down by the concussion. All this was accomplished in an instant by a kind of fire out of the heavens called lightning or a thunderbolt, accompanied by a crashing sound. For what purpose? The ancients

called it Jove's bolt, with which he punished the guilty, and we moderns understand it no better. There was displayed a Titanic force, some of that force which made and can unmake the world. The brute forces are not yet wholly tamed. Is this of the character of a wild beast? or is it guided by intelligence and mercy? If we trust our natural impressions, it is a manifestation of brutish force, or vengeance more or less tempered with justice. Yet it is our consciousness of sin probably which suggests the idea of vengeance, and to a righteous man it would be merely sublime without being awful. This is one of those cases in which a man hesitates to refer his safety to his prudence, as the putting up of a lightning-rod. There is no lightning-rod by which the sinner can avert the avenging Nemesis. Though I should put up a rod, if its utility were satisfactorily demonstrated to me, yet, so mixed are we, I should feel myself safe or in danger quite independently of the senseless rod. There is a degree of faith and righteousness in putting up a rod as well as in trusting without one, though the latter, which is the rarer, I feel to be the more effectual rod of the two. It only suggests that impunity in respect to all forms of death or disease, whether sickness or casualty, is only to be attained by moral integrity. It is the faith with which we take medicine that cures us. Otherwise we may be cured into greater disease. In a violent tempest we both fear and trust. We are ashamed of our fear, for we know that a righteous man would not suspect danger, nor incur any. Wherever a man feels fear, there is an avenger. The savage's and the civilized man's instincts are right. Science affirms too much. Science assumes to show why the lightning strikes a tree, but it does not show us the moral *why* any better than our instincts did. It is full of presumption. Why should trees be struck? It is not enough to say, Because they are in the way. Science

answers, "*Non scio*, I am ignorant." All the phenomena of Nature need to be seen from the point of view of wonder and awe, like lightning; and, on the other hand, the lightning itself needs to be regarded with serenity, as are the most innocent and familiar phenomena. There runs through the righteous man's spinal column a rod with burnished points to heaven, which conducts safely away into the earth the flashing wrath of Nemesis so that it merely clarifies the air. This moment the confidence of the righteous man erects a sure conductor within him; the next, perchance, a timid staple diverts the fluid to his vitals. If a mortal be struck with a thunderbolt *coelo sereno*, it is naturally felt to be more awful and vengeful. Men are probably nearer to the essential truth in their superstitions than in their science. Some places are thought to be particularly exposed to lightning, some oaks on hill tops, for instance.

I meet the partridge with her brood in the woods, a perfect little hen. She spreads her tail into a fan and beats the ground with her wings fearlessly, within a few feet of me, to attract my attention while her young disperse. But they keep up a faint, wiry kind of peep which betrays them, while she mews and squeaks as if giving them directions. — Chestnut trees are budded. — I picked a handful or two of blueberries. These and huckleberries deserve to be celebrated, such simple, wholesome, universal fruits, food for the gods and for aboriginal men. They are so abundant that they concern our race much. Tournefort called some of this genus at least, *Vitis-Idoea*, which apparently means the vine of Mount Ida. I cannot imagine any country without this kind of berry. Berry of berries, on which men live like birds, still covering our hills as when the red men lived here. Are they not the principal wild fruit?

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