A SYMBIOTIC RELATIONSHIP: ANNA BARBAULD'S IDEAL OF MORAL PROGRESS THROUGH SCIENCE AND IMAGINATION

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by

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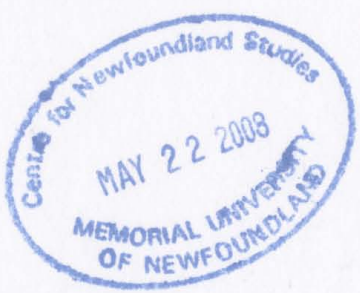

Abstract

Anna Letitia Barbauld's work mediates between the extremes of Enlightenment rationalism and Romantic imagination. Through readings of some of her scientifically focused poetry, such as "The Mouse's Petition," "An Inventory of the Furniture in Dr. Priestley's Study," "To Mr. S. T. Coleridge," "Washing-Day," and "The Invitation," as well as the prose work, "Hill of Science: A Dream-Vision," this thesis demonstrates how Barbauld saw science and poetry, reason and imagination, as symbiotic, mutually dependent concepts integral to society's political, cultural, and social well being. These works are discussed in the context of her Dissenting background, her friendship with Joseph Priestley, and her commitment to the educational principles of the Warrington Academy. The thesis examines Barbauld's sympathetic evaluation of the merits and shortcomings of scientific objectivity and imaginative subjectivity and focuses on her fundamental goal of promoting moral responsibility and integrity in the actions of scientists and poets alike.

Acknowledgements

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The things that will destroy us are: politics without principle; pleasure without conscience; wealth without work; knowledge without character; business without morality; science without humanity; and worship without sacrifice.

—Mahatma Gandhi

Introduction

Anna Letitia Barbauld's work is a fascinating blend of ideals, worlds, and poetic styles. It bridges the intellectual gap between the rationalism of the Enlightenment and the expressivism of Romanticism. Ideologically, she is both a conservative traditionalist and liberal dissenter. Understanding her ideas and beliefs requires sorting through the negotiations and evaluations she employs, and to study Barbauld is to accept that few hard and fast conclusions will be drawn. Barbauld rarely committed herself to a single idea. Even in cases where she was strongly supportive, she still had an awareness of alternative ideas and contradictory positions. She was never judgmental or dismissive. It is this quality of toleration and speculation that can make the study of her work frustrating, but also rewarding. In this thesis, I will explore the ambivalences in Barbauld's scientifically focused poetry and endeavour to demonstrate how she saw science and poetry, reason and imagination, as symbiotic, mutually dependent concepts integral to society's political, cultural, and social well being.

Barbauld was not a scientist nor did she use verse to express scientific ideas. When I refer to Barbauld's scientific poetry, I do not define it in the same light as poetry written by *scientists*, such as the verse of Erasmus Darwin or Humphry Davy. She was not even a dabbler in experimental science as other women of her era were, yet she was a keen observer of the world around her. Her upbringing and educational background fostered her support of experiment and innovation, but Barbauld's primary interest was in observing, recording, and, to a certain extent, guiding the course of these advances and their effects on society. Her method was thus to assess and appreciate the *potential* of

scientific progress. Barbauld's "scientific" writings rarely focus on specific scientific examples but on science's cumulative impact on civilization and its development. Science during the seventeenth century was deemed "objective, value-free, and context-free" (Merchant 228) and carried with it the promise of unprecedented social equality. Barbauld embraces the social changes heralded by scientific innovation but regrets the anticipated destruction of nature. She desires humanity to maintain its moral integrity and suggests that the imagination is the way to do so. Imagination allows for contemplation and evaluation, which Barbauld viewed as a necessity in an ever-evolving technological world. Yet there is a similar tentativeness in her advocacy of an imaginative approach. Imagination that descends into self-interested fancy, placing the desires of the individual over the needs of the group, is also detrimental to the development of society. Imagination thus needs to be tempered by reason.

Several steps have to be undertaken to lay the groundwork for unraveling the intricacies of Barbauld's scientific preoccupation. Chapters One and Two provide the context for the close readings of Chapters Three and Four. Chapter One outlines the cultural influence of science as it evolved from the natural philosophy of the seventeenth century to the formation of scientific specialties in the nineteenth century by examining how major scientific revelations, such as Newton's *Principia Mathematica*, impacted such cultural institutions as politics, religion, and gender. Considering the evolution of science and its influence on culture can enable a greater understanding of Barbauld's ambivalence.

Barbauld's own development is equally vital. Her experiences and influences are extremely diverse. She spent the majority of her life in the public arena of writing, teaching, and entertaining and counted prominent politicians, writers, and socialites as close acquaintances. As of now, a definitive, scholarly biography has yet to be published, so a picture of Barbauld's life can only be gleaned from her letters, literary writings, and a few memoirs written by family and friends. Chapter Two thus provides a progressive examination of those elements and events that helped to shape her views on science and imagination.

Chapters Three and Four are textual analyses. Chapter Three focuses exclusively on Barbauld's prose dream-vision, "Hill of Science: A Vision." It is a little known piece, originally (and only) published in *Miscellaneous Pieces in Prose*. Academic attention to it has been limited, confined to supporting and contextualizing analyses of Barbauld's better known poems. It is directly relevant to my later analysis of her poetry because it metaphorically describes the tensions Barbauld saw between science and imagination and addresses the pros and cons of each. However, "Hill of Science" is not as straightforward as this description implies, and its complexity and ambivalence serve to accentuate Barbauld's aim of inspiring reflection. Chapter Four examines several of Barbauld's poems in detail. Each poem is discussed in relation to the concepts of science and imagination, and their potential for social benefit, detriment, and, finally, cooperation. Where Chapter Three contends with Barbauld's ambivalence towards reason and imagination, Chapter Four addresses how she attempts to understand and reduce that

ambivalence. The poems under discussion demonstrate Barbauld's view of the interconnected roles that reason and imagination play in society's moral development.

Chapter One: Culture(s) of Science and Sympathy

Embracing the late seventeenth-century findings on matter and the mechanical teachings of Isaac Newton, the eighteenth century commenced with a philosophy radically diverging from classicism – emphasizing reason and individualism over blind tradition. The enthusiasm for reason and individuality prompted curiousity in scientists of the Enlightenment to understand the world around them at its most basic, elemental level and prove that all aspects of natural phenomena allowed for a mechanical explanation through physics and chemistry.[1] The idea of living, evolving matter was explained through a "radical separation between mind and matter that only God's intervention could heal" (Reill *Vitalizing* 7). The recent turn in criticism on the period from the dichotomies of mechanism/organicism and Enlightenment/Romanticism so long accepted by Romantic scholars provides a position for renewed and invigorated examination of Barbauld's poetry.[2] Although these dichotomies have become

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[1] The beginning of the Enlightenment scientific evolution is highly arbitrary and readily debated. Developing from the Scientific Revolution (1500-1700), it can be viewed from the mid seventeenth century through to the early nineteenth century with the influential treatises of Bacon (1561-1642), Boyle (1627-1691), and Newton (1642-1727) being published between the 1660s and 1700.

[2] Recent scholarship has moved away from the dualistic perspective proposed by C. P. Snow's *The Two Cultures* (New York: Cambridge UP, 1993). There are several studies arguing for a division between science and poetry in the Romantic period, such as: Paul R. Gross and Norman Levitt, *The Higher Superstition: The Academic Left and Its Quarrels with Science* (Baltimore: Johns Hopkins UP, 1994) and Richard Dawkins, *Unweaving the Rainbow: Science, Delusion and the Appetite for Wonder* (Boston: Houghton Mifflin, 1998). There are also several studies that are concerned with the connections between science and poetry that are particularly relevant to Barbauld's awareness of social progress and morality's vulnerability to excessive reason/imagination: Marshall Brown, "Romanticism and Enlightenment," *The Cambridge Companion to British Romanticism*. Stuart Curran (Cambridge: Cambridge UP, 1993): 25-47; Hans Eichner, "The Rise of Modern Science and the Genesis of Romanticism," *PMLA* 97 (1982): 8-30; Denise Gigante, "The Monster in the Rainbow: Keats and the Science of Life," *PMLA* 117 (2002): 433-48; Kevis Goodman, *Georgic Modernity and British Romanticism: Poetry and the Mediation of History* (New York: Cambridge UP, 2004); Trevor H. Levere, *Poetry Realized in Nature: Samuel Taylor Coleridge and Early Nineteenth-Century Science* (New York: Cambridge UP, 1981); Edward Profitt, "Science and Romanticism," *Georgia Review* 34 (1980): 55-80; Alan Richardson, *British Romanticism and the Science*

increasingly obsolete, they nevertheless provide a convenient and useful starting point from which to discuss Barbauld's vision of how reason and imagination can and should work together.[3] This chapter will examine the basic principles of enlightened mechanistic science and Romantic organic science, emphasizing the importance of reason and imagination. It will not undertake to catalogue scientific persons or activities of the times, but simply to identify the most common attitudes about science during the eighteenth and nineteenth centuries. It will demonstrate how the sciences of the era influenced the religious and political climates of late eighteenth- and early nineteenth-century England and, as a consequence, reflect the more particular issues of woman's role in society, the home, education, and social progress. Anna Letitia Barbauld is a wonderful example for contemporary Romantic criticism. The previously understood binary between the stark rationalism of the Enlightenment and the lavishness of Romantic imagination is actively challenged by Barbauld. Her writing merges the two, creating a discourse of acceptance, tolerance, and moderation that seeks to guide social progress from the Enlightenment into the Romantic. This chapter will provide the historical and cultural framework for the ensuing discussion of Barbauld's writing.

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of the Mind (Cambridge: Cambridge UP, 2001); G. S. Rousseau, *Enlightenment Borders: Pre- and Post-Modern Discourses: Medical and Scientific* (New York: St. Martin's, 1991) and "Science and the Discovery of Imagination in Enlightened England," *The Past As Prologue: Essays to Celebrate the Twenty-Fifth Anniversary of ASECS*, Ed. Carla H. Hay (New York: AMS, 1995) 19-43; and Stuart Strickland, "Galvanic Disciplines: the Boundaries, Objects, and Identities of Experimental Science in the Era of Romanticism," *History of Science* 33 (1995); 449-68.

[3] Although the binary between mechanism/organicism and Enlightenment/Romanticism has become obsolete it still serves a critical purpose. Barbauld's emphasis on tolerance and negotiation demonstrates the failure of the binary and of overly schematic approaches to Romanticism generally and the need to change critical interpretation of Romanticism.

Every great advance in science has issued from a new audacity of the imagination.
—from *A Quest for Certainty* (1929), John Dewey

A priori reason had been the abiding dogma of natural philosophy for generations prior to the eighteenth century. Supported by the religious belief that God created all life in its most complete and perfect form, natural philosophers examined their world around them from these key assumptions and sought evidence to support them. For "men of science" during the seventeenth century, knowledge was based upon the understanding of experiences that were "universal and evident to all rational people; knowledge of these was knowledge of things that *had* to happen in nature, and not of singular events that by themselves were indications of no underlying regularity" (Iliffe 268).[4] However, with the publication of Isaac Newton's *Philosophiae Naturalis Principia Mathematica* in 1687, philosophers began to view the *a priori* method as irrational and susceptible to subjectivity. Natural philosophy began to become more empirical in its observations. As Roy Porter describes, "In the light of the triumph of Newtonian science, the men of the Enlightenment argued that experience and experiment, not *a priori* reason, were the keys to true knowledge" (*Enlightenment* 2). Enlightenment thinkers began to style themselves on the French ideal of the *philosophe*, defined by Diderot and D'Alembert as one who "trample[s] on prejudice, tradition, universal consent, authority, in a word, all that enslaves most minds" (3). Enlightened natural philosophers saw themselves as critics, freeing their minds and the minds of others from the tyranny of assumed truths that

[4] Here I would like to make the same clarification as others before me: by "men of science" I follow the standard terminology, recognizing that it was primarily a field of study for men, while not dismissing the activities of women. As well, it should be noted that "science" had yet to acquire its current definition. "Men of science" were those who examined natural phenomena.

stemmed almost entirely from Church doctrine, and using human intelligence for understanding human nature and analyzing humankind in relation to their surroundings.

The early part of the Enlightenment was marked by what Peter Hanns Reill describes as the Enlightenment Project, an "overriding impulse to transform contingent knowledge into certain truth, to reduce the manifold appearances of nature to simple principles" ("Legacy" 25) through formal mathematical reasoning. The eighteenth century was a transition period for natural philosophy and for the concept of nature. The study of nature began to fragment itself from the prevailing causal and assumptive disposition of philosophy, focusing instead on a methodology that was more mathematical and mechanistic, a "science of facts, observation and controlled inference" (Reill *Vitalizing* 3). With this new, empirical, and independent path of natural philosophy emerging from under the blanket of traditional philosophy, changes occurred in the perception of nature. No longer did nature represent the only example of causes and effects understood through repetitive observations accumulated over time. Rather, it became much more fragmented as Newton's theory of matter was applied. In England, as John Gascoigne describes, Newton's work represented a "radical break from the traditions of natural philosophy in that it largely abandoned the attempt to construct a model of Nature based on philosophically consisted premises" (288).

Pivotal to this reenergized focus of natural philosophy was the advent of the experiment. Experiments allowed for natural phenomena to be viewed abstractly by contriving experiences; experimenters found themselves able to replicate natural processes and isolate them, generating awareness of natural processes that had previously

been undetectable. Prominent natural philosophers of the time, such as Francis Bacon and Robert Boyle, also expressed concern about the validity of simple observation. Bacon claimed that he "distrusted bare senses as media of knowledge" and proposed a "collectivist natural history" that went beyond observation and recording of facts to include experiment (qtd. in Iliffe 271).[5] The discovery of physical, chemical, and mineral phenomena garnered from experiments of the eighteenth century helped to lay the basis for natural philosophy's claim to be a privileged source of knowledge, which later evolved into the modern idea of science and the scientific branches.

Where the Enlightenment can be seen to embrace science and all its potential, the Romantic approach to science is habitually seen as more reserved. When it came to ideas of science, the Romantic poets were extremely cautious of systems, notions, and hypotheses. Reductive practices were a source of great concern and contention among Romantic natural philosophers, and, to certain Romantic poets, an anathema: William Blake denounced Bacon, Locke, Newton, and Voltaire as the evil geniuses behind the new commercial and industrial system, condemning them as the creators of "dark Satanic Mills" (*Milton*, Preface 8). Blake and those with a similar perspective saw the hypothetically based system of Enlightenment science as the instigator of moral corruption and civil unrest by basing knowledge on mistakes and inaccuracy. Rather than the ideal 'controlled inference' of Enlightenment definition, hypothesis now "implied mechanical and atomistic explanations, mistaken attempts to penetrate behind the phenomena" (Knight *Science* 84). There appeared to be an innate distrust of science and

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[5] From Bacon's *Instauratio Magna* (1620).

scientific practices. However, despite these appearances, the Romantics were, in fact, as interested in science and the study of nature and life as the generations that preceded them. Knight reiterates a contention L.R. Furst put forth in his *Romanticism in Perspective* (1969), that in England, there appeared to be a "compound of Augustan factuality and accuracy of observation with Romantic feeling and imaginative modification of phenomena" (*Science* 80). Developed in reaction to the mechanical form of the Enlightenment, which was perceived as static, determined, and unchanging, the organic form of the Romantics suggested that there was a basic and fundamental element to life and nature that was living, growing, and developing in and with all natural phenomena.

The scientific focus of the nineteenth century was also different. George Rousseau identifies the questions that preoccupied the Romantics: "They dwelled on the *kind of learning* science was and asked what kind of knowledge science is … How, they asked, does it compare with other forms of knowledge, and what aspects of it will endure?" (799). Knight elaborates upon this idea of Romantic concern, stating, "For the man of science, the question whether the pattern being imposed was true or simply the outcome of convention, hypothesis or system was an acute one" (*Science* 83). Perhaps one of the most recognized features of the Romantic period is faith in the creative possibilities of the imagination. Obvious in the poetry of the period, it is equally integral to Romantic science. Romantic scientists did not eradicate the experience/experiment mechanical model of the seventeenth and eighteenth centuries (a model that survives today), but sought to modify the Newtonian model of inert matter into one that

complemented Romantic imagination. For natural philosophers of the period, science and knowledge had to go beyond the mere accumulation of facts, development of new technology, and intellectual stimulation: it had to interactively involve them with nature. Science now was interested in how humankind was connected with other aspects of nature. The imagination was the key to the Romantic identification with and experience of nature. This imagination needed to be tempered, however. It could not be the fanciful imagination of myth and superstition; rather, it was a rational imagination, which melded the intellect and reason with a more sublime awareness of the natural world and gave the natural philosopher the ability to perceive true analogies instead of hypothesis. The danger of reductionism and absolutism was still there during the nineteenth century, but its threat was offset by the realization that in science there were no unrelated facts or unrelated branches of knowledge; there was always that fundamental source of life that connected all living things. This fundamental connection was the source of Romantic identification with nature. As Sharon Ruston notes in her discussion of Shelley's vitalism, "Mechanistic ideas of the body and the law of animation were replaced with a new sense of an all inclusive, constantly fluctuating sea of life" (24). In his poem, "The Tables Turned," Wordsworth identifies the concern associated with an overly rational pursuit of scientific knowledge: "Our meddling intellect / Misshapes the beauteous forms of things— / We murder to dissect" (14-16). For the man of science in the nineteenth century, such as Humphry Davy, the goals had changed: "knowledge was only given to those who deserve it: natural science is a personal interaction with nature, not an autopsy" (Knight "Romanticism" 15). No longer could the scientist ignore the *life*

present in nature for the sake of gaining knowledge. Recognition of this responsible, personal interaction with nature is essential to an understanding of Barbauld's position regarding science, imagination, and progress. Humanity's connection with nature provided the moral underpinning for society's progress.

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Knowledge is power.
—from *Novum Organum* (1620), Francis Bacon

Science is a powerful political, cultural, and social tool. It is capable of uncovering the mysteries of life and creation and generating new advances in technology. This is not to say that science necessarily improves society. Science also has the hazardous tendency to support the status quo to the point of absolutism and tyranny. It is equally capable of manipulating social constructions and ideology as it is of advancing cultures. The evolution of science in the eighteenth and nineteenth centuries made it particularly vulnerable to propagandistic uses. Science in the Enlightenment was a propagandist's dream. As Roy Porter puts it, "The natural sciences always came gift-wrapped in ideology....The voice of 'science' might bolster elite culture, while discrediting the beliefs and behaviours of the pious, the poor, and the plebs, of women and the marginalized" (Porter "Introduction" 11). The advent of the contrived experiment and a reductive theory of life led to an abstract conception of knowledge and truth, which lent itself readily to ideological support. The belief in natural evidence as the overthrower of myth and superstition was fallible; facts and figures could easily be manipulated to support the dominant (or not so dominant) thought. Scientific discourse was becoming increasingly prominent in culture, ideology, and society as the scientific

models of Bacon, Descartes, Galileo, Gassendi, and Newton were appropriated by philosophy, poetry, religion, and politics (Porter "Introduction" 6).

Stephen Toulmin summarizes the Enlightenment project as "an intellectual and practical agenda that focused on the...pursuit of mathematical exactitude and logical rigor, intellectual certainty and moral purity, [setting Europe] on a cultural and political road that led both to its most striking technological successes and to its deepest human failures" (29). The most obvious contrast between Enlightenment and Romantic perceptions of science is found in their social and ideological positions about knowledge. As we will see, much of Barbauld's poetry, such as "The Mouse's Petition," demonstrates a preoccupation with what kind of knowledge is valuable and how it will ultimately affect civilization. She did not embrace advancement for the sake of advancement; instead she wanted scientists and inventors to carefully and responsibly consider the whys and hows of their experiments. The eighteenth century is marked by the embrace of science as an innovative tool for civilization's progress. The Romantics recognized man's nature, capacities, and knowledge as the associative product of his environment and were able to utilize this knowledge to affect change upon that environment. As Rousseau points out, "A nation's power ... seemed encased in its degree of progress; its progress seemed predicated on scientific achievement, which translated into practical technological advance and then in turn to wealth and prosperity" (766). Society during the Enlightenment had a significant amount of confidence in the objectivity of science and its ability to sustain progress ultimately to perfection. Unfortunately, the atrocities and tyranny of the French Revolution would tarnish that

faith in perfectibility, and it is from this revised outlook that the Romantic perception of science and society stems. Science of the early nineteenth century was not only concerned with facts and understanding physical, mechanical, and chemical practices, but also with the question of progress and the quality of the resultant civilization. Some contemporary intellectuals, like Blake and Charles Lamb, saw progress through science as an illusion; as Rousseau paraphrases, "Science applied to society was ... more corrupt than pure, prone to corrupting" (796). They had a distrust of literalist, empirical science because of the possibility of oversimplification, particularly with regards to human nature and behaviour, and feared that through too much finite knowledge man would be given to expand beyond his limitations. The aftermath of the French Revolution, with its focus on a sense of equality that implied entitlement, seemed to confirm these fears. Science had propagated the advancement of knowledge and human rights that led to the French lower class demands for equality, but it had failed to provide safeguards against absolutism of the opposite sort. Science became a tool that allowed for accumulation rather than a method for gaining the knowledge that would free mankind from the tyranny of prejudice.

The so-called "cult of sensibility" (1740s-'70s) emerged in reaction to the late seventeenth- and early eighteenth-century emphasis on reason and knowledge propagated by scientific thought and endeavour. Encouraged by an evolving awareness of class distinctions, religious freedom, definitions of community, manufacturing and technological advances, and gendered social roles, sensibility carried with it "resonances of an understanding and love of people in all their complexity: a genuine 'moral attribute

of man', combining both reason and passion" (White *Natural Rights* 45). Sensibility conveyed "a principle of equality which was to lead to the related directions of claims for political rights and social concern for the fate of economic, class, and sexual victims" (White *Natural Rights* 45). Closely linked to this "culture of sensibility" was the often interchangeable idea of "sentiment." While sensibility and sentiment are frequently seen as synonymous, particularly with regards to literary application, there is a subtle difference. As Janet Todd posits in *Sensibility: An Introduction*, the term "sensibility" came to "denote the faculty of feeling, the capacity for extremely refined emotion and a quickness to display compassion for suffering" while "sentiment" was "a moral reflection, a rational opinion usually about the rights and wrongs of human conduct ... influenced by emotion, a combination of heart with head or an emotional impulse leading to an opinion or a principle" (7). However, during the 1780s and '90s, this "quickness to display compassion" and "emotional impulse" was progressively demonized as lacking in rationality and prone to exaggeration and became inextricably linked to the female, further entrenching the dichotomy of the reasoned man and the emotional woman. As Todd notes, "It suggested and still suggests debased and affected feeling, and indulgence in and display of emotion for its own sake beyond the stimulus and beyond propriety (8). Any pretension at "rational opinion" was discredited by the accepted stereotype of "dull moralities" (Todd 9).

There is no question that much of Barbauld's work stems from the emotionally demonstrative tradition of sensibility, but in terms of her scientifically directed poetry it is not so much exploration and aggrandization of feeling as it is reflective prioritizing that

interests her.[6] Rather than attempting to display or elicit overly emotional affectations, Barbauld appeals to the human capacity for sympathy in her poetry, relying on the human "inclination to sympathize with others, and to receive by communication their inclinations and sentiments…[as] the basis of social harmony" (Todd 27). Barbauld maintains an impartiality reminiscent of Adam Smith's designation in *Theory of Moral Sentiments* (1759).[7] Following in the footsteps of Locke, Shaftesbury, Hutcheson, and Hume and embracing sympathetic sensation and feeling as a method by which to understand human development and interaction, Smith believed in a sympathetic "fellow-feeling":

> Pity and compassion are words appropriated to signify our fellow-feeling with the sorrows of others. Sympathy, though its meaning was, perhaps, originally the same, may now, however, without much impropriety, be made use of to denote our fellow-feeling with any passion whatsoever. (Smith 10)

As R. S. White summarizes, "Sympathy lies at the heart of Smith's overall theory—a form of fellow-feeling, a sharing of feelings *within* someone rather than *on behalf* of another" (47). Smith believed that moral understanding developed from the evaluation of

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[6] Marlon B. Ross describes her writing as following the tradition of late eighteenth-century occasional verse with its sentimental overtones ("Configurations of Feminine Reform: The Woman Writer and the Tradition of Dissent." *Re-visioning Romanticism: British Women Writers, 1776-1837*. Ed. Carol Shiner Wilson and Joel Haefner. Philadelphia: U of Pennsylvania P, 1994. 96). G. J. Barker-Benfield argues in *The Culture of Sensibility: Sex and Society in Eighteenth-Century Britain* (Chicago: U of Chicago P, 1992) that Barbauld, along with many other women writers including the Bluestockings, were instrumental in the inculcation of the "cult of sensibility" and its deification.

[7] A student of Hutcheson, Adam Smith was a moralist, political economist, and a lecturer of Logic and Rhetoric and Moral Philosophy at Glasgow University. His ultimate ambition was to write "a connected history of the liberal sciences and elegant arts" (Campbell 16).

human conduct, which in turn could only be undertaken if there was an awareness of shared feelings and emotions. He also believed that although this evaluation was essentially an individual experience, the impetus behind it was collective and socially significant. An emotive and sympathetic social connection enabled people to judge their actions by how they might react: "We endeavour to examine our own conduct as we imagine any other fair and impartial spectator would examine it" (Smith 147*fn*). Distilling Smith's complex depiction of the "impartial spectator," White describes him as one who "does not forfeit warm human feelings in the interests of what he calls 'cool reason': rather the reverse, for the morally aware spectator can find through mutual sympathy the appropriate feelings which would be stirred in any reasonable person by a situation" (47). Barbauld uses Smith's contrived sense of sympathy to elicit a reaction from her readers and compel them to critically analyze their actions and intentions, particularly, as we will see, in "The Mouse's Petition."

Barbauld was predisposed to embrace the concept of sympathy as a means by which to enact social change due to her affiliation with the Dissenting movement. During the second half of the eighteenth century there was a social, political, and religious movement that derived from Puritan beliefs developing throughout England and that embraced science and learning as the tools for human progress. Not a rigidly mandated sect, the Dissenting movement was denominational, consisting of a variety of doctrinal positions—Calvinists, Arminians, Arians, Socianians, Unitarians, etc.—united by the essential desire to demystify Christianity through rational consideration of its principles. For Dissenters generally, religion encouraged the virtue necessary for social

progress, emphasizing the internal authority of self-knowledge in matters of morality, rather than any external authority. As a result, Dissenters objected to the Creeds and Offices of the Church of England. While a nonconformist reaction to the established church, Dissent was not disassociated from the social, religious, and political structures of English culture but rather, as Daniel E. White describes it, "a purer form of the English Protestant inheritance" (*Early Romanticism* 9). Identifying the Established church as a revised manifestation of Popery, with its system of bishops and political allegiances, members of Dissenting congregations adopted "austere" and "enlightened" civil values, such as liberty, free and rational enquiry, virtue, self-discipline, and a middle-class mercantile ethos" (11). With such a focus on tolerance and free will, the Dissenting movement had "the very openness and fluidity…that allowed religious thinkers and writers of the period to shape and reshape their aesthetic, political, and moral values through encounters with the range of theologies, habits, and manners accompanying the various communities of nonconformity" (6). The emphasis on personal development and improvement within the beliefs of Dissenting congregations encouraged the establishment of a system of academies that countered the classical teachings of the mainstream, Establishment schools of Eton, Harrow, and Westminster, and the universities of Cambridge and Oxford. One of the most well known of these schools was the academy established at Warrington, Lancashire. Founded by a Presbyterian congregation, the Warrington Academy relied upon a doctrine of impartial investigation and freedom in judgment and choice, characterized by a sympathetic awareness of humanity's interaction with their environment and society. It believed that natural

history was "a means of social cohesion and unification" and that "the sciences, in lending themselves to a natural theology, could establish common ground on matters of religion where too much decisiveness had reigned" (Brooke 22-23). Institutions like Warrington produced a significant generation of theologians, scientists, and scholars who were known as Rational Dissenters. Catherine Moore describes the Rational Dissent of Warrington as the "rejection of human authority, the natural right of determination according to conscience, power in the congregation and not in the hierarchy, toleration, and above all, freedom of criticism" (30). Tutors and graduates of Warrington Academy were "genuine lovers of truth, liberty, and science" (Moore 30) and believers in "private judgment, personal conscience, and free interpretation of scripture" (White *Early Romanticism* 25). Barbauld was a lifelong liberal Dissenter and such poems as "The Mouse's Petition," "Washing-Day," and "The Invitation" are infused with Dissenting visions of freedom and revelation. Priestley, a Unitarian scientist and theologian, was an icon of the Dissenting movement (and frequent subject of Barbauld's scientifically oriented poetry). His work and beliefs are most often used as the standard by which Rational Dissent is judged. For Priestley, science was never separate from either politics or religion. In 1774, while working on his gaseous experiments, he wrote, "The rapid process of knowledge…will, I doubt not, be the means under God of extirpating all error and prejudice, and of putting an end to all undue and usurped authority in the business of religion as well as of science" (qtd. in Ruston 28). For Rational Dissenters, science and knowledge were the keystones of eventual social equality and progress.

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You cannot hope to build a better world without improving the individuals. To that end each of us must work for his own improvement, and at the same time share a general responsibility for all humanity, our particular duty being to aid those to whom we think we can be most useful.

— Marie Curie

Science in the eighteenth and nineteenth centuries impacted notions of femininity and the role of women in society. As with the Dissenting movement, science was viewed by women as offering the possibility of intellectual freedom, creating a sense of equality between the sexes. The figure of woman had always featured prominently in the discourse of nature. Nature as a whole was seen as female and fertile; both pagan and Christian traditions figured woman as the nurturer and bearer of new life. Christianity had devalued the status of women with the propagation of the Original Sin concept, figuring woman in a flawed and substandard role. Despite the depreciation of the female, the fertile goddess tradition continued through the notion of Mother Nature.[8] The science of the eighteenth century embraced both cultural myths. As Londa Schiebinger states, "Gender became one potent principle organizing eighteenth century understandings of the natural world, a matter of consequence in an age that looked to nature as the guiding light for social reform" (201).[9]

In a complex relationship, science served an integral part in women's lives yet within a limited scope. The scientific pursuits of astronomy and botany were viewed by both men and women as a suitable vocation. It averted women from their natural

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[8] Refer to Carolyn Merchant's *The Death of Nature* (Cambridge: Harper & Row, 1980) for a detailed analysis of the impact of the Scientific Revolution and the changing roles of and perspectives about women and nature.

[9] Carl Linnaeus used traditional gender hierarchies to develop his classification system of plants and animals, contributing greatly to the gendering of natural philosophy. As well as propagating the social standards by incorporating them into the scientific, he also contributed to the reaffirmation of said social standards. In particular, his classification of the order of Mammals, appropriating the female breast as his icon, served to solidify the notion of the *naturalness* for women to suckle their young, and consequently to reinforce the notion of a woman's role as mother alone.

inclination to fritter and trivialize their time and lives, and as such was seen as a form of both recreation and enrichment. In an age that was heavily preoccupied with the idea of self-improvement and individualism, science was viewed as the means by which women could improve themselves without threatening their duties as wife and mother. Any knowledge they garnered from scientific observation and experimentation would be useful to these roles. As Patricia Phillips describes in her book, *The Scientific Lady*, the development of qualities considered "appropriate to the improvement of the female sex, were attributed to the study of science…that it induced reverence and modesty; that it encouraged domesticity and curtailed flightiness; that it offered a harmless hobby, a curative for depression and a corrective to the evils rife in society" ("Introduction" x). Phillips identifies Priscilla Wakefield as an avid exponent of the necessity of a scientific education for women. As Phillips describes, Wakefield believed that science, as it was dependent upon deductive reason and discernment, was the only "sure way to acquire knowledge. Without attentive observation, books and instruction are of little avail to enrich the mind; though with it, they are admirable assistants" (qtd. In Phillips 109).[10] With advice such as this, women began engaging in scientific tourism, nature observation, and botany. Priscilla Wakefield did not intend that a scientific education for women would drive them to careers outside of the home; on the contrary, for her scientific study was character building, and could help women become better wives and mothers. Nevertheless, practice in science provided women with insight into this predominantly masculine world and gave them a sense of authority.

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[10] From Priscilla Wakefield's *Domestic Recreations or Dialogues illustrative of Natural and Scientific Subjects* (London: Darton & Harvey, 1805).

With this sense of authority, women acted as the moral guide for members of the household. Patricia Fara notes, "women were vital for establishing effective channels of communication" (26). Women engaged their intellect in the pursuit of understanding what men had discovered and making that knowledge accessible to others. Pursuing their goals as teachers, women interpreted complex theories into easily accessible, straightforward explanations that were not only read by students but also by the lesser educated public (Fara 26). As well as providing instruction, women were frequently, albeit quietly, engaged as assistants in men's scientific experiments. A woman's role within the laboratory extended from the translation of foreign languages, note taking, and sample collection to compiling, editing, illustrating, and publishing treatises and books. As scientific focus shifted away from philosophy and into experiment, it was believed that "a woman, untrammeled as she was by the remote and irrelevant subtleties of a classical education, was particularly receptive to an understanding of the newest scientific theories" (Phillips 85). Barbauld frequently depicts women in the roles of guide and educator in her writing. This is particularly true of "Hill of Science: A Vision," in which she adopts the images of female deities as guides to genuine enlightenment.

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All religions, arts and sciences are branches of the same tree. All these aspirations are directed toward ennobling man's life, lifting it from the sphere of mere physical existence and leading the individual towards freedom.

—Albert Einstein

The history of the relationship between science and literature goes far beyond the confines of observation notebooks and explanatory treatises. There has always been an

underlying motivation throughout history for cultures to develop systems of communication, the need to share ideas and thoughts by such means that the vast majority will understand. To that end, science and poetry have similar goals. Literature has always carried the onus of expressing the human condition and attempting to make sense of reality and human nature. The didactic nature of literature, and particularly poetry, was still prevalent during the Enlightenment. In the Romantic period, the popularity of didactic literature waned, but writers were still attempting to impart knowledge and beliefs. Regardless of what critics of fact or fiction have stated through the centuries, the ambition of both science and poetry is to share information in a style that is accessible – their differences stem from the type of information being shared. While there are distinctions between the two that cannot and should not be ignored, they are still interconnected cultural productions. Jan Golinkski notes that "science, like music, literature, or fashion is a cultural form, to be understood historically in relation to social forces such as emulation and consumerism" (6). Eighteenth- and nineteenth-century writers recognized the connections and frequently used the one to promote and expand the other. Literature during this time was a major source of information, and the primary goal of writers was to articulate contemporary and fundamental issues of society and humanity. In Barbauld's time, poems like "The Mouse's Petition" further debate about issues like animal cruelty and scientific practice, while others, such as "The Invitation" and "Washing-Day," prominently feature cutting-edge breakthroughs in technology. During the Enlightenment and the Romantic period, the convergence of poetry and science was considered current news.

Wordsworth writes, "[the poet] will be ready to follow the steps of the man of science...He will be at his side, carrying sensation into the midst of the objects of science itself. The remotest discoveries of the chemist, the botanist or mineralogist will be as proper objects of the poet's art as any" (*Lyrical Ballads*, "Preface of 1802" 260). Romantic poets like Wordsworth and Coleridge felt that science had something unique to offer to poetry and vice versa, but they were not the only ones who thought that way; in 1715, Joseph Trapp, a Professor of Poetry at Oxford University, stated, "Nothing shines more in Verse, than Disinquisitions of natural History. We then see the strictest Reasoning join'd to the politest Expression. Poetry and Philosophy are happily united" (Phillips 119). The fundamental belief, then, was that science could be improved through incorporation with poetry and that literature could also benefit from its affiliation with science and natural history. The figure of the scientist-poet was common in the latter half of the eighteenth century and into the nineteenth. Erasmus Darwin, Humphry Davy, and John Herschel, for instance, all felt that science was incomplete without the aid of poetry. The scientist-poet was able to demonstrate to the public how imagination could temper unaided reason and provide the fullest appreciation of knowledge. As David Knight comments, "'Scientist' poetry reminds us that the verifiable kind of knowledge expressible in exact prose is not the only kind, and that the well-rounded and well-educated person responds to all kinds of intellectual excitement in the effort to make sense of experience and enjoy life" (*Science* 281). Poetry allowed for the more obscure, profound, or perplexing scientific discoveries to be conveyed in an analogical manner that was more palatable to the general public. As well as literature benefiting science by

easing accessibility, Enlightenment and Romantic science also proved useful to literature. Aside from providing a wealth of new images and analogies, scientific study was also reorienting human consciousness in a variety of new and fascinating ways as a natural anthropocentrism developed. The interconnectedness of life in nature and in the human mind elevated poetry to entirely new heights as the eighteenth century became the nineteenth century.

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While Barbauld can hardly be considered a scientist-poet, she frequently incorporates examples of scientific experiment and achievement into her poetry. Her writing also provides the opportunity to assess the merit of scientific advancement. She was intrinsically connected to all the elements of science and poetry discussed in this chapter. She was a Rational Dissenter, teacher, mother, poet, and critic. She was indirectly involved in scientific experiments and considered by many, including Joseph Priestley, to be a learned, wise, and conscientious acquaintance and counselor. In the following chapter, I will briefly outline Barbauld's life in order to gain a fuller appreciation of her intimacy with science and poetry.

Chapter Two: Inside Anna Barbauld's "Well Taught Philosophic Mind"

Anna Letitia Barbauld lived a long, productive, and influential life that, as Chapter One demonstrated, spanned the course of two diverse periods in social growth, development, and change. During her life her peers and critics regarded her as a preeminent writer whose society was highly sought after in the literary and social circles of the day. A daughter, sister, and friend to important members of the Dissent movement in England, she also maintained ties with the Establishment.[11] Her acquaintances included members of the clergy, scientists, writers, and politicians. She was an intimate correspondent of Joseph Priestley, the renowned Dissenting chemist and theologian. She corresponded with and was visited by up-and-coming poets Samuel Taylor Coleridge and William Wordsworth, and had a passing acquaintance with Whig politician and father of the Gothic novel, Horace Walpole, 4th Earl of Orford. She was affiliated with the Bluestocking Circle of Elizabeth Montagu and Elizabeth Carter, was acquainted with Mary Wollstonecraft, and was considered one of the Nine Living Muses of Great Britain during the eighteenth century, sharing company with the likes of Montagu, Carter, Hannah More, Charlotte Lennox, and Catherine Macaulay.[12] Yet her primary allegiance

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[11] The use of the term "Establishment" serves to inclusively refer to the dominant group of society who held power and controlled its cultural institutions (religion, education, politics, etc.).

[12] See Richard Samuel's 1779 painting of the leading 'Bluestockings,' portrayed as daughters of Zeus residing in Apollo's temple (features Elizabeth Carter, Anna Letitia Barbauld, Angelica Kauffman, Elizabeth Anne Sheridan, Catherine Macaulay, Elizabeth Montagu, Hannah More, Elizabeth Griffith, and Charlotte Lennox). The Bluestockings, so named because of the blue stockings worn by Benjamin Stillingfleet when he called on Lady Mary Wortley Montagu, were a group of learned and literary ladies. Mistresses of the salons, they would hold weekly meetings in their homes for the purposes of conversation with leading intellectuals, both men and women. For more on the Bluestocking phenomenon, see Sylvia Harcstark Myer's *The Bluestocking Circle: Women, Friendship, and the Life of the Mind in Eighteenth-Century England* (Oxford: Clarendon, 1990), Betty Schellenberg's *The Professionalization of Women*

was always to her roles as wife, mother, and teacher. As a result, her "feminist" tendencies appear somewhat moderated by her belief that women should not seek to move beyond those roles. She believed in human and animal rights, was active against oppression towards women and the marginalized sects of society, and campaigned for religious and political freedom. She also maintained an interest throughout her life in civilization's progress, documenting changes in social, political, religious, and scientific domains through her extensive oeuvre of poetry, prose, and criticism. Barbauld is fascinating in her recognition and synthesis of society's evolving interest in reason and imagination; she both maintains her early neoclassical views and beliefs and is considered a representative early Romantic writer. This chapter will briefly outline the life of Barbauld, focusing primarily on specific points and details that pertain to her fascination with science and its use in her writing.

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Barbauld led a full and varied life and was possessed of such an open mind and keen wit that her commentary on her society is of significant historical value. Yet there is no critical biography documenting her fascinating life. What does exist is a handful of memoirs and comparison sketches.[13] Most of these were written prior to 1900. Of these

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Writers in Eighteenth-Century Britain (Cambridge: Cambridge UP, 2005), and Nicole Pohl and Betty Schellenberg's *Reconsidering the Bluestockings* (San Marino, CA: Huntington, 2003).

[13] In the development of this concise biography, assorted resources were utilized. Several memoirs were used to extract relevant information, including: Lucy Aikin, *The Works of Anna Letitia Barbauld, with a Memoir by Lucy Aikin.* Vol. I (London: Longman, 1825); Anna Letitia LeBreton, *Memoir of Mrs. Barbauld, Including Letters and Notices of Her Family and Friends* (London: George bell, 1874); Jerome Murch, *Mrs. Barbauld and her Contemporaries: sketches of some eminent literary and scientific Englishwomen* (London: Longman, 1877); Anne Thackeray Ritchie, *A Book of Sibyls — Mrs. Barbauld, Miss Edgeworth, Mrs. Opie, Miss Austen* (London: Smith, Elder, & Co., 1883); Betsy Rodgers, *Georgian Chronicle: Mrs. Barbauld and Her Family* (London: Methuen, 1958); and Herbert Maclachlan, *Warrington*

memoirs, three are written by relatives of Barbauld (her niece, Lucy Aikin; her great-niece, Anna Letitia LeBreton; and her great-great-niece, Betsy Aikin Rodgers). Friends and admirers, such as Grace Ellis and Anne Thackeray Ritchie, wrote many of the others. Though it is possible that these documents are accurate and impartial, the close relationships between biographer and subject suggest subjective editing of the material, even if unintentional. In 1969, Catherine Moore published her PhD dissertation (University of North Carolina) on the career of Barbauld, including a biography. The focus of her project, though, can be seen to have influenced her telling of Barbauld's story (as in fact it does in this project too). Recently, a biography of Anna Letitia Barbauld was published by Dick Wakefield (2001) through Centaur Press, a vanity press in London, England. The self-publication medium alone raises eyebrows, as does his amateur status with no academic credentials or background in the field. The text contains numerous (and obvious) assumptions and leaps in reasoning making much of the information presented highly suspect. William McCarthy, emeritus professor of English at the University of Iowa, is reported to be working on Barbauld's biography set for publication in 2007-2008, perhaps filling this critical gap.[14]

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Academy: Its History and Influence (Manchester: The Cheltam Society, 1943). While some correspondence was included in memoirs, an invaluable resource for firsthand information is Moll Beverstein's and Laura Mandell's website, *Anna Letitia Barbauld Prose Works* http://www.muohio.edu/womenpoets/barbauld/ which includes both digital images and transcriptions of a large body of correspondence.

[14] William McCarthy is also the author of several articles concerning Barbauld and coeditor of *The Poems of Anna Letitia Barbauld* (Athens: U of Georgia P, 1994) and *Anna Letitia Barbauld: Selected Poetry and Prose* (Peterborough: Broadview, 2002) with Elizabeth Kraft. Another invaluable resource to scholars of Barbauld is Lisa Vargo and Allison Muri's *Anna Letitia Barbauld Website* (www.usask.ca/english/barbauld/) which has an extensive digital library of editions, annotated poems, and prose works.

Chance favors the prepared mind.

—Louis Pasteur

Anna Letitia Aikin Barbauld was the daughter of John Aikin, a Presbyterian minister and theology tutor for the Dissenting academy at Warrington, and Jane Jennings Aikin. Born on 20 June 1743 at her father's school in Kibworth Harcourt, Leicestershire, Barbauld was noted from an early age to be a precocious child of startling intellect and inquisitiveness. As the daughter of two intellectual parents and growing up in the rarefied setting of a boy's school, Letitia (as she was known) was exposed to ideas and received an education not readily available to young girls of the period.[15] It is well known that she was tutored by her father in Latin, Greek, French, and Italian, as well as the literature of England, particularly that of Joseph Addison, and that it was through this exposure that she professed her "great appreciation for correct and elegant writing" (Rodgers 30). Anna Barbauld was also privy to discussions of a philosophical nature. Kibworth had a small boarding school and students often joined the tutors for meals. During one such meal, a discussion that had started in the garden between Dr. Aikin and a student about the dependence of joy upon happiness was countered by Letitia, who quoted from the New Testament, stating, "there is more *joy* in heaven over one sinner that repenteth, than over ninety-nine just persons that need no repentance" (Rodgers 30). This early example of Anna Letitia's understanding of scripture speaks not only to her intelligence and quick wit but also to an awareness of the power of reflection, evaluation,

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[15] Jane Jennings was the granddaughter of the founder of the Kibworth school, John Jennings. She met John Aikin when he was employed by her father at the school. Although there are no records of her manner of education, family history suggests that she would at the very least have been exposed to both classical and Dissenting theories of education.

and change. Even at a young age, she recognized that reform does not necessarily come from change en masse, but from a single person providing an example. Dr. Aikin taught by a principle of discussion and debate with the ultimate goal being "to encourage free inquiry, [and] to enable students to arrive at rational conclusions independently" (Moore 28). Barbauld's education and rhetorical aptitude demonstrates the liberal attitude that Aikin probably fostered about the idea of a woman's education. However, Letitia's mother, Jane, was less enthusiastic. While she was justifiably proud of her daughter's intelligence, she was also "afraid that living in a boy's school might make her daughter rough and ill-mannered, and she made such efforts to bring her up with the utmost decorum and propriety" (Rodgers 30); she "strictly forbade any communication with the schoolboys" (Ritchie 10). It was later reported by her niece, Lucy Aikin, and great-niece, Anna Letitia LeBreton, that Anna Letitia Aikin had a difficult relationship with her mother that caused Barbauld to be reserved and diffident in many of her personal relationships.

One pivotal and strong relationship in Barbauld's life, however, was with her brother, John. Four years her junior, John was her playmate as a child growing up at Kibworth in an environment that was populated primarily by adults. The relationship they developed while exploring the countryside solidified a shared love for nature and learning that never diminished with age. John Aikin went on to study medicine at the University of Edinburgh and in Leiden, Holland. During this time, he wrote to his sister, stating, "I am very much surprised the study of the structure and uses of the parts of the human body is not taken into the plan of a learned education…what a pity the mind and

the body should be so little acquainted with each other!" (Rodgers 54).[16] It is not, however, for his medical career that John is most well known. An avid natural philosopher, he was also an established writer, publishing treatises on the local landscape, political pamphlets, and poetry. One of his best known pieces was a discussion of poetry and science, *An Essay on the Application of Natural History to Poetry* (1777), in which he describes the methods by which natural history improves poetry and advises poets to be more cautious and observational in their use of natural imagery. From 1796 to 1806, Aikin edited the *Monthly Magazine*, to which Barbauld contributed poems and essays, as well as the *Athenaeum* (1806-1821). Aikin and Barbauld also collaborated on other projects, including *Essays on Song-Writing* (1772), *Miscellaneous Pieces in Prose* (1773), and the immensely popular children's collection, *Evenings at Home* (1793). Throughout his life, Aikin was a vocal supporter of his sister. In his miscellany, *Reminiscences and Table Talk*, Samuel Rogers recounts a conversation between John Aikin and Charles James Fox concerning the Aikins's *Miscellaneous Pieces in Prose*:[17]

> "I am greatly pleased with your *Miscellaneous Pieces*, Mr. Aikin," said Fox. Aikin bowed. "I particularly admire," continued Fox, "your essay, *Against Inconsistency in our Expectations*." "That," replied Aikin, "is my sister's." "I like much," returned Fox, "your essay, *On Monastic*

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[16] John Aikin's comment resonates with the later Romantic preoccupation with mind and matter; see Alan Richardson's *British Romanticism and the Science of the Mind* (Cambridge: Cambridge UP, 2001) for an interesting discussion. These comments reflect the growing interest in unifying aspects of the natural world into a complete education and a recognition that there has to be a wider scope of awareness for the betterment of humankind, which were goals of the Warrington Academy and other Dissent schools.

[17] Samuel Rogers (1763-1855) was a non-conformist poet. Charles James Fox (1749-1806) was a British Whig politician, third son of Henry Fox, 1st Baron Holland and Caroline Lennox, daughter of Charles Lennox, 2nd Duke of Richmond.

Institutions." "That," answered Aikin, "is also my sister's." Fox thought it best to say no more about the book. (95)

Until John's death in 1822, brother and sister were very close. Communication in the form of letters and extended visits were ongoing and Anna's brother was a continuous source of literary support, advice, and criticism. The work of each depended to a certain extent upon the activities of the other, and their letters, poetry, and essays provide commentary on the changing social climate of the late eighteenth and early nineteenth centuries.

When Anna Letitia was fifteen and John eleven, the family moved to Warrington, Dr. Aikin having accepted a position with the Dissenting Academy located there. Unlike many other schools, including Kibworth, which were dependent upon familial connections to maintain them, the Warrington Academy was set up as a public enterprise in order to directly counter the transitory nature of other schools.[18] Warrington Academy was designed to foster liberal ideas and provide training for the ministry as well as for secular life. Its target students were those who were "to be engag'd in a commercial Life, as well as the Learned Professions to give them some Knowledge of the more useful Branches of Literature; and to lead them to an early Acquaintance with, and just Concern for, the true Principles of Religion and Liberty" (Rodgers 31). Like other Dissenting schools, but unlike the schools and universities of the Church of England, Warrington taught and promoted knowledge in mathematics and science, believing them to be a suitable adjunct to the classical curriculum of philosophy and rhetoric. Warrington stood

[18] Typically, schools that were set up by nonconformists tended to close upon the death of their founder, as they were frequently small and supported exclusively through the contributions of their founders.

apart from other Dissenting schools, though. It was considered cutting edge at the time for its inclusive philosophy. Beyond the first few years of its operation and because of its independent nature, Warrington Academy began accepting students who did not originate from a nonconformist background.[19] While the school maintained its strong advocacy of Dissenting views and ideals, it nevertheless fostered an interesting blend of attitudes and doctrine that had hitherto not been attempted. Upon its dissolution in 1786, alumni of Warrington Academy continued its traditions of teaching and belief in schools in York and Manchester. Its influence is still felt today, at Oxford University, in Manchester College.[20]

Anna Letitia Aikin was described by those who knew her as having a thirst for knowledge, a thirst that was nourished by her experiences at Warrington and continued throughout her life. In describing her aunt, Lucy Aikin writes, "In youth, the power of her imagination was counterbalanced by the activity of her intellect which exercised itself in rapid, but not unprofitable excursions over almost every field of knowledge. In age, when this activity abated, imagination appeared to exert over her an undiminished sway" (Aikin lxiii). The Aikin house in Warrington was well known as a conclave of educated people. As Betsy Rodgers states, "In this house were to meet together for many years a little band of men and women who shone in literature, science, and theology, and whose liberal humanism and wide learning were to give Warrington the name of 'the Athens of

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[19] One such notable student was Rochemont Barbauld, a descendant of the French Huguenots, whose father was the chaplain to the Elector of Hesse in Germany. Barbauld entered Warrington in September 1767, despite the intention of entering the Anglican Church ministry. Not only did he meet Anna Letitia Aikin, his later wife, but he also absorbed the Dissent ideals and joined their ministry.

[20] Manchester College is not a direct descendant of Warrington, but it is indebted to Warrington for its "emblems of [their] continuous life and undying pursuit of intellectual and spiritual light" (James Martineau qtd. in H. Maclachlan's *Warrington Academy* (1943, 137).

the North'" (38). Through her exposure to this open-minded environment and these people, Barbauld developed a strong sense of personal authority. She was, as Daniel E. White describes, "a liberal (i.e., Arminian and Arian) Presbyterian with Unitarian ties" (37).[21] She believed in the innate morality of the human conscience, as well as in toleration, liberty, and truth. These beliefs manifested themselves in a variety of causes she undertook throughout her life and led her to befriend a wide variety of people. Warrington's philosophy of harmony in religious, political, and social behavior enabled Barbauld to later span the conceptual gap between imagination and science and view them as allied ideas in her poetry. Throughout her poetry, emphasis is placed on the individual's imaginative and compassionate evaluation of truth and virtue.

Warrington Academy was also where Barbauld made many lasting relationships. Of particular significance to her ideas about science was her acquaintance with Dr. Joseph Priestley. A tutor of belles lettres and languages at Warrington (replacing her father, Dr. John Aikin, who was appointed tutor of theology in 1761), Priestley had already gained notoriety for his experiments with electricity. Later, in his experiments with different gases, Priestley would isolate and discover oxygen. During his tenure at Warrington, which lasted until 1772, Priestley encouraged the addition of geography and history into the curriculum. He was known for promoting free inquiry, believing that

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[21] Daniel E. White, in his book *Early Romanticism and Religious Dissent* (Cambridge: Cambridge UP, 2006), discusses in detail the highly complex relationship Barbauld had with Dissenting denominations: "Barbauld writes from a perspective that does not easily reside within 'rational' Dissent in general and Unitarianism in particular; through careful manipulations of moral sensibility, she dialectically reclaims but tempers both the spontaneity an particularity of Puritan devotion....Barbauld's single most coherent theological position was Arminian, or more properly anti-Calvinist....She seeks to take up the spontaneous qualities of Puritan preaching...and to integrate them into the culture of a more latitudinarian and denominational age—an age, in fact, not of sectarian fervor but rather of sensibility and accommodation" (50-51).

"lay students needed studies with a near and more evident connection with the business of active life" (Moore 26), and encouraged his students to use experimental apparatuses. Another pedagogical move peculiar to Priestley was his habit of requiring poetic submissions from his students, believing that this would help to improve their prose compositions. Anna Letitia Aikin, as a frequent visitor to the Priestley household and a close friend of both Joseph and his wife, Mary Wilkinson, was privy to these poetic treatises, and, according to Priestley, it was her "perusal of some verses of mine that first induced her to write anything in verse; so that this country is in some measure indebted to me for one of the best poets it can boast of" (53).[22] Priestley was also a member of the Lunar Society in Birmingham, sharing the company of notables such as Josiah Wedgwood, Erasmus Darwin, James Keir, and Benjamin Franklin. Meeting on the Monday nearest the full moon, the men of this society, "Lunatics" as Darwin later labeled them, explored the connections between natural history and literature. During this time, Priestley became more vocal about his theory of natural religion, publishing *Letters to a Philosophical Unbeliever* (1787), *History of the Corruptions of Christianity* (1782), and the *History of the Early Opinions Concerning Jesus Christ* (1786). These publications provoked great anger at all levels of society—from his neighbours to members of the House of Commons—sparking pamphlets, periodicals, and pulpit remonstrances about his unorthodox, bedeviled views. This anger culminated in the Birmingham Riot of July 1791, a night of attacks against members of the Dissent movement, and particularly

[22] To what extent this statement is true is still up for debate; however, it is known that she wrote while in his house: most famously, "The Mouse's Petition," responding to the plight of a captured mouse for his experiments.

against the Priestley family itself. It resulted in the destruction of their home and his laboratory and library, eventually forcing the family to flee to America. The Priestleys, following their departure from Warrington and later England, maintained a friendship and correspondence with Barbauld. Because of a shared sympathy for free thinking, human rights, and civilization's progress, Priestley is a frequent subject of Barbauld's poetry, in which she alternately admires, chastises, and defends him.

After marrying Rochemont Barbauld, Anna Letitia accompanied her husband to Palgrave, Suffolk in 1774. He accepted a small Presbyterian ministry and together they opened a boarding school for boys. The Palgrave School, which existed from July of 1774 until September 1785, was an instant success, assisted by Rochemont Barbauld's county connections and Anna Barbauld's public fame. Barbauld was an integral part of the Palgrave school, as the testaments of her pupils demonstrate. William Taylor, for example, an authority on German literature, referred to Barbauld as the "mother of his mind" (Robberds 8), and credited her with opening the world of science wide before him and letting geography and history take the lead. Barbauld assumed responsibility for the school's accounts, the creation of lectures in history and geography, the presentation of school theatricals, and the development of a curriculum for the class of boys aged two to three. She was dedicated to the realization of humankind's inherent potential and "saw education as a chief means to progress. A champion of science, Mrs. Barbauld could see no conflict between scientific and humanistic studies" (Moore 123). For her young students at Palgrave, she saw no reason to shelter them from the realities of life. Barbauld viewed conventional ideas about education as misguided; in 1773, she wrote,

"Education, in its largest sense, is a thing by which a human being is formed to be what he is, in habits, principles, and cultivation of every kind" ("On Education" 306). Drawing a distinction between education and cultivation, she continued, "It is not necessary, with Rousseau or Madame Genlis, to devote to the education of one child the talents and the time of a number of grown men; to surround him with an artificial world; and to counteract, by maxims, the natural tendencies of the situation" ("On Education" 317). Separating pupils from their natural environment, according to Barbauld, defeated the purpose of cultivating them in the finer details of science and the arts. As her educational stories demonstrate, she rarely sentimentalizes nature, describing death as readily as life and depicting life as completely as small children could understand. Despite the caustic criticism of people like Charles James Fox and Dr. Samuel Johnson, who dismissed her methodology and particularly her books as only able "To suckle fools, and chronicle small beer" (Rodgers 71), Barbauld's methods and texts remained an important resource for teachers well into the nineteenth century.

During the holidays from the school term and following the closure of the school itself in 1785, Anna Letitia and Rochemont Barbauld traveled frequently to London and France. Her letters chronicle her activities, ranging from societal dinners to scientific lectures.[23] These letters demonstrate a fascination with human invention and a desire to understand technology on an imaginative level. In a letter to her brother during a visit to London in 1784, Barbauld writes:

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[23] To date, there is no collected edition of Barbauld's letters. Assorted letters are reprinted in several memoirs and editions of Barbauld's writings. Some of her letters are also reprinted in on-line formats, particularly Zach Weir's and Laura Mandell's University of Miami (Ohio) site, *Anna Letitia Barbauld Prose Works.* All references to her letters are from this site.

> Well, my dear brother, here we are in this busy town, nothing in which (the sight of friends excepted) has given us so much pleasure as the balloon which is now exhibiting in the Pantheon. It is sixteen feet one way, and seventeen another; and when full (which it is not at present) will carry eighty-six pounds. When set loose from the weight which keeps it to the ground, it mounts to the top of the magnificent dome with such an easy motion as to put me in mind of Milton's line, "rose like an exhalation."[24] (Letter to John Aikin, London, Jan. 2nd, 1784, 23)

The exact description of the balloon's design attests to Barbauld's objective eye for science and technology; she consciously notes weights and measurements with a care to accuracy. Yet, even as she documents the technical specifications, she instinctively notes imaginative connections and draws a poetic comparison. As we will see, Barbauld's fascination with technological detail and imaginative analysis is evident in such poems as "The Invitation."

Her fascination with hot-air balloons does not diminish.[25] During an excursion to France with Rochemont in 1786, she writes excitedly about their introduction to M. de Morveau, a renowned scientist and one of the first to ascend in the balloon. She describes him as "a man of great merit, who was *avocat-général*, but acquitted his profession for the sake of applying himself to philosophical studies, and chiefly chemical. He writes all the chemical articles in the New Encyclopedia. He esteems Dr. Priestley, Dr. Black, and Mr. Kirwan, to be the chief men in England in the philosophical way"

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[24] From *Paradise Lost*, I.711.

[25] Hot air balloons are featured in her poem "Washing Day."

(Letter to John Aikin, Besançon, Oct 9th 1785, 30).[26] Barbauld appears familiar with all of these characters and demonstrates an attitude that supports Morveau's quest for scientific discovery. Science and scientific inquiry are discussed as freely as any other topic. She writes to her friend Elizabeth Belsham from Hampstead in 1800 of the fashionableness of the Royal Institution in London:

> I went a few mornings ago to hear Dr. Garnet, who is at present the only lecturer, and was much pleased to see a fashionable and very attentive audience, about one third ladies, assembled for the purposes of science improvement....It does credit to the taste of the town, that the Institution and the Bishop of London's lectures have been the most fashionable places of resort this winter. (Letter to Miss E. Belsham, Hampstead, 1800, 67).

In the Besançon letter to John Aikin, she further demonstrates her affinity for the science of nature as she describes the stalactites in a grotto:

> From Dole we should have gone directly to Besançon, but were induced to strike out of the road to visit the *grottes stalactites* of Auxcelles....Had you been there, you would have seen it with a more philosophical eye, and have told us how the continual dropping of waters through those rocks forms those beautiful petrifications, which when polished, as they sometimes are, have the luster and transparency of crystal. But it required

[26] Richard Kirwan (1733-1812) was an Irish chemist, mineralogist, meteorologist, and geologist, known as a laborious experimenter and supporter of the Phlogiston Theory. Prior to the discovery of oxygen, this theory posited the existence of a hypothetical element present in all combustible substances that allowed them to burn.

> only eyes to be struck with the most magnificent Gothic church;—tombs, images, drapery, pillars, shrines all formed without much aid from fancy, by nature working alone for ages in these long and lofty caverns. (Letter to John Aikin, Besançon, Oct 9th 1785)

Barbauld appears to defer to her brother's greater knowledge about the creation of stalactites and the workings of nature, yet she knows the process as well as we may suppose he does. Aside from simply indulging the male ego, she deliberately creates a distinction between genders: the masculine perspective has "a more philosophical eye," while she is capable of seeing imaginatively as well as analytically. In this letter, Barbauld demonstrates the associative viewpoint that, in her poetry, allows her to comparatively accentuate her moral advice.

From 1786 until her death in 1825, Anna Barbauld lived in and around the London area. From 1787 until 1802, the Barbaulds lived in Hampstead, where Rochemont ministered to the Rosslyn Hill congregation. This was a period of great social activism for Anna Barbauld. Always a liberal in her convictions, Barbauld lived, as Ritchie describes it, "in very stirring days, when private people shared in the excitements and catastrophes of public affairs. To her the fortunes of England, its loyalty, its success, were a part of her daily bread" (32). In 1769 with the writing of "Corsica," Barbauld had demonstrated an early sympathy with the cause of national identity and independence. She was further inspired by the American and French Revolutions and devoted a great deal of energy to equal rights for all humankind, both in England and internationally. While living in Hampstead, she published many socially

progressive treatises: *An Address to the Opposers of the Repeal of the Corporation and Test Acts* (March 1791), *Epistle to William Wilberforce* (June 1791), *Remarks on Gilbert Wakefield's Enquiry into the Expediency of Public or Social Worship* (May 1792), and *Sins of the Government, Sins of the Nation* (April 1793).[27] A recognized literary leader, Barbauld met and corresponded with many writers and poets of the day, including Joanna Baillie, Hannah More, Richard Lovell and Maria Edgeworth, and Samuel Taylor Coleridge, while her proximity to London allowed her to continue her already established relationship with Elizabeth Montagu. It also provided the opportunity to experience plays and lectures, as revealed in the above-discussed letter.

In 1802, she and Rochemont moved to Stoke Newington, where John Aikin had previously moved. While living there, she continued to write for periodicals and undertook the editing of Richardson's correspondence as well as the fifty-volume set of *The British Novelists* (1810), but she refrained from writing poetry during this time, with the notable exception of *Eighteen Hundred and Eleven* (December 1811). Inspired by the extended war between France and England, this poem described the potential ruin of European society. It was met with a harsh, critical backlash, most famously from the conservative *Quarterly Review* in January 1812, which ridiculed her as merely a woman and a teacher of children, incapable of understanding the male dominated affairs of state:

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[27] The Corporation and Test Acts were established to prohibit Catholics, Nonconformists, and non-Christians from public office. The Corporation Act (1661) made participation in local government dependent on the taking of the Holy Communion sacraments through Anglican rites. The Test Act (1672) made holding public office conditional on being a practicing Anglican. Both acts were unanimously repealed in 1828, due to a push by Dissenters. William Wilberforce, MP (1759-1833) was part of the movement to end the slave trade, co-founding the Society of the Abolition of the Slave Trade. He presented the first bill to abolish slavery, which was defeated in 1791. Gilbert Wakefield (1756-1801) was Warrington's classics tutor until 1783.

"Mrs. Barbauld's former works have been of some utility...though they display not much of either taste or talents, are yet something better than harmless: but we must take the liberty of warning her to desist from satire, which indeed is satire on herself alone" (qtd. in Rodgers 141). She never published poetry again.

In 1808, Rochemont Barbauld succumbed to a mental disorder that caused him to despise Barbauld's company, culminating in attacks of physical violence against her that forced their separation. Despite early misgivings about her marriage, Anna had come to describe her husband to Elizabeth Belsham Kenrick as "the partner of my heart, my faithful friend, my inseparable companion" (qtd. in Ritchie 43).[28] Rochemont moved to Norwich where he drowned himself in the New River in November of 1808. Anna lived for seventeen more years, and filled these years with visits from family and friends, maintaining a constant circle of literary, scientific, and reform acquaintances about her.

In 1883, Anne Thackeray (Mrs. Richmond Ritchie) wrote, "It is noteworthy that few of Mrs. Barbauld's earlier productions equaled what she wrote at the end of her life. She seems to have been one of the those who ripened with age, growing wider in spirit with increasing years" (23). Every phase of Anna Barbauld's life is documented in her literary legacy. As a young woman in Warrington, she began writing verses that reflected her appreciation of the natural world around her and captured not only images of it, but also her evolving thoughts and beliefs about nature and its role in human development

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[28] Anna Letitia Aikin wrote to Elizabeth Belsham prior to her wedding, stating, and "now next Thursday they say I am to be finally, irrevocably married. Pity me, dear Betsy; for on the day I fancy when you will read this letter, will the event take place which is to make so great an era in my life. I feel depressed, and my courage almost fails me. Yet upon the whole I have the greatest reason to think I shall be happy" (qtd. in Rodgers 63).

and social progress. In 1773, she published the initial *Poems* through William Eyre's Press in Warrington, one of the few times she published her own poetry.[29] During her tenure at Palgrave, her focus shifted towards didactic writing, creating children's primers that taught Christian ethics and values while opening the natural world to young minds. Although written with the intention of entertaining and educating her adopted son, Charles, these little books and hymns were quickly disseminated across the country, influencing the education of generations to come.[30] As political turmoil brewed in England and France during the late 1780s and into the early decades of the nineteenth century, Barbauld again shifts away from the verse form and the story books, writing pamphlets publicly declaring her opinions and drawing attention to the policies and politicians of England and France. The first decade of the nineteenth century is also marked by her attention to editing projects. Retreating somewhat from current political and social affairs after the disillusionment of the French Revolution, Barbauld turns her attention to earlier writers of the late seventeenth and eighteenth centuries, in particular

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[29] The original edition of *Poems* was published by Eyre's Warrington press and used Joseph Johnson as their London agent. Four editions of *Poems* were later published by Joseph Johnson in London.

[30] Rochemont and Anna Letitia Barbauld's adopted son, Charles Rochemont, was the son of her brother, John Aikin, and his wife, Martha (nee Jennings). Why the Barbauld's could not have their own biological children is unknown, although Rochemont was known for having a weak constitution before succumbing to his mental disorder.

In late 1775 following the birth of Aikin's son, Charles, Barbauld wrote to him from Palgrave:

Dear Brother,

To my sister and yourself Mr. Barbauld and I have a request to make, in which, though perhaps it may be rather singular, we are very seriously in earnest; and therefore, whether you grant or deny, we hope you will neither laugh at us nor take it amiss....Our request then, in short, is this: that you will permit us to adopt one of you children; which of them, we leave to you; — that you will make it ours in every sense in which it is possible to make it, — that you will transfer to us all the care and all the authority of a parent; that we should provide for it, educate it, and have the entire direction of it as far into life as the parental power itself extends....Give us, then, which you will; only let him be healthy, inoculated, and as young as you can possibly venture him to undertake the journey. (Letter to Dr. Aikin, Palgrave September 9, 1775, 9-13)

The adoption was finalized in 1777 before Charles's second birthday.

Samuel Richardson, and compiles selections from periodicals such as the *Spectator*, *Tatler,* and *Guardian* that reflect her changing world views. During her twilight years, Barbauld's writing again shifts focus, becoming a blend of her prominent political tracts and her earlier focus upon poetry. Publishing such pieces as *Eighteen Hundred and Eleven* and distributing many smaller verses amongst friends and family, she used the verse form to draw attention to the potential failings and pitfalls of social progress and its creations of slavery and tyranny.

Unlike many other writers of her generation, Barbauld was in the literary spotlight for her entire life. As the *Table Talk* conversation cited above demonstrates, she gained more notoriety for her work than her brother ever did in his life. She was frequently praised. In 1773, the *Monthly Review* reviewed *Poems*, stating that "In some of the pieces we have a smoothness and harmony, equal to that of our best poets; but what is more extraordinary, in others we observe a justness of thought and vigour of imagination, inferior only to the works of Milton and Shakespeare" (Rodgers 64).[31] Writers such as Hannah More, Maria Edgeworth, Frances Burney, Samuel Taylor Coleridge, and William Wordsworth were all, at one time or another, complimentary of Barbauld's work. In a letter to Alexander Dyce, Wordsworth recommends the inclusion of several of Barbauld's lines in Dyce's upcoming *Specimen* (260). Wordsworth is also said by Henry Crabb Robinson to have muttered, "I am not in the habit of grudging people their good things,

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[31] The *Monthly Review's* assessment of Barbauld's poetry supports my argument about Barbauld, noting both her skill as a poet and the underlying imaginative morality that guided her subject matter and style. It supports the belief that Barbauld wrote with the goal of enlightening her readership through the use of imaginative verse. The close comparison to Milton and Shakespeare attests to the longevity and relevancy of Barbauld's verses.

but I wish I had written those lines" (Sadler 227).[32] By the end of the eighteenth century, Barbauld appears to have been the best-known living poet, male or female. As an anonymous author notes, by 1798 her popularity was assured and her poems were believed to have been in the

> possession of every person who has any pretensions to taste, and every library in the kingdom; and public suffrage has amply ratified their claim to distinction....most of them are evidently stampt with an ardour of genius, an unity of design, an expansion of intellect, a boldness, a dignity, a compass of expression, as well as a copiousness and harmony of numbers, seldom surpassed by either Dryden, Pope, or any of their imitators. (qtd. in Rodgers 66)

Despite such praise, Barbauld was frequently criticized for her writing, as the passage from the *Quarterly Review* above demonstrates.[33] Her gender and her role as teacher and wife of a Dissenting minister were common points of attack. Horace Walpole referred to her as Deborah or the Virago Barbauld for her interest in politics and government, while Charles Lamb, in conversation with Coleridge, scathingly describes intellectual women generally as "impudent, forward, unfeminine, and unhealthy in their minds" (qtd. in

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[32] The lines referenced are from her poem, "Life, written in extreme old age" (23-30), which were also highly admired by Fanny Burney. Robinson records this incident in his reminiscences after describing his first introduction to Mrs. Barbauld in December 1805, acknowledging that it is out of chronological order. However, we can be reasonably assured that the Wordsworth's comment was made after Barbauld's death, probably around January 1826, corroborated by the correspondence between Robinson and Dorothy Wordsworth.

[33] See page 41.

Rodgers 149).[34] Due to the obvious influence of her classical education and extensive reading, Barbauld was often beleaguered by charges of being unfeminine, despite her usual and accepted feminine subject matter of domestic affairs.[35]

Barbauld's position on women's rights is often as ambivalent as her position on science. Despite being the recipient of a privileged education primarily reserved for men and holding a position of social authority, Barbauld nevertheless felt that a woman's place was primarily in the home. She was a supporter of Mary Wollstonecraft and her *Vindication of the Rights of Woman*, but was cautious about its endorsement of radical change. She was opposed to what she felt was "Wollstonecraft's declared war with the male sex" (Barbauld *Poetry* xxv). Barbauld's vision of a woman's place in society emphasizes harmony, and she was determined to make "man an ally, not an adversary" (Barbauld *Poetry* xxv).[36] As McCarthy and Kraft suggest, her poetry, for the most part, can be considered "'typical' women's verse – celebrations of domestic life and character, nature poetry, hymns, and prayers" (Barbauld *Poetry* xxiii), but she complicates this characterization by writing satire, riddles, and poems in a mock-heroic style generally

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[34] Deborah was a prophetess and judge of Israel (Judges 4-5). She aided the Israelites to victory over the Canaanites by rousing the people from their lethargy after years of subjugation had crushed the patriotic spirit. "Virago" refers to a loud-voiced, scolding woman, derived from the Latin "vir" meaning man and "-ãgõ" expressing resemblance. An example of Coleridge's contempt of Barbauld was his criticism of her use of diction in her *Hymn to Content* (stanza seven) during his 27 January 1812 lecture on Milton.

[35] Refer to the review of *Poems* in the *Monthly Review* 48 (1773): 54-59, 133-37. See also Richard Polwhele's *The Unsex'd Females: A Poem, Addressed to the Author of the Pursuits of Literature* (1798), lines 91-92. In his critique of Wollstonecraft's *A Vindication of the Rights of Woman* (1792), Polwhele identifies Barbauld as Wollstonecraft's foremost disciple despite Barbauld's belief in women's propriety and her opposition to women's radical education.

[36] An extensive dialogue exists between Wollstonecraft and Barbauld regarding their individual beliefs about women and society. Wollstonecraft admired Barbauld's "Thoughts on Devotional Taste, and on Sects and Establishments" and "To Mrs. Priestley, with some Drawings of Birds and Insects" but criticized Barbauld's "To a Lady, with some painted Flowers" as promoting the "sensual error…which robs the whole sex of its dignity" (*Vindication* 53). Barbauld responded bitterly in "The Rights of Woman," criticizing what she saw as Wollstonecraft's gender role reversal.

attributed to men. Reviewers of Barbauld's poetry have frequently stumbled over her halting support of women. Throughout her life, Barbauld was offered a number of opportunities to promote the place and role of women within her society. Elizabeth Montagu, in 1773, offered Barbauld the principalship of a proposed college for ladies, which Barbauld refused in favour of her husband's Palgrave school — for boys. Later, Maria Edgeworth approached her on the subject of editing and contributing to a literary periodical devoted to women, a Feminiad. This project was also refused. Such refusals have troubled readers and critics for centuries.[37] In reply to Montagu, Barbauld wrote, "I should have little hope of cultivating a love of knowledge in a young lady of fifteen who came to me ignorant and uncultivated: it is too late then to begin to learn" (qtd. in LeBreton 47). She validates her position by reminding Montagu that young women *must* make themselves marriageable and that "[a] kind of Academy for ladies where they are to be taught in a regular manner the various branches of science appears to me better calculated to form such characters as the *Précieuses* or *Femmes Savantes* than good wives or agreeable companions" (qtd. in LeBreton 46). She does support a qualified education for women, though: "The best way for a woman to acquire knowledge is from conversation with a father or brother, and by such a course of reading as they may recommend...the care of a mother alone can give suitable attention to this important period [age fifteen and older]" (qtd. in LeBreton 47).

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[37] Refer to Marilyn Williamson's "Who's Afraid of Mrs. Barbauld? The Blue Stockings and Feminism" (*International Journal of Women's Studies* 3 (1980): 89-102) and Marlon B. Ross's *The Contours of Masculine Desire: Romanticism and the Rise of Women's Poetry* (Oxford: Oxford UP, 1989) for examples of recent critical concern about the limits of Barbauld's feminism.

Barbauld was aware of the paradox of gender equality and the separation of spheres, stating to Montagu, "Perhaps you may think that having myself stepped out of the bounds of female reserve in becoming an author it is with an ill grace that I offer these statements" (qtd. in LeBreton 48). As a recognized and influential writer, Barbauld had attained a degree of equality, yet it was intimately connected to (and limited by) her desire to maintain a level of propriety. In 1969, Catherine Moore wrote, "her ideal woman possesses a great capacity for love, piety, sacrifice, and steadfastness. She serves inconspicuously...artlessness and simplicity are more prized than polish and sophistication. Moreover, intellectual attainment almost elicits apologies" (129). Moore goes so far as to suggest that Barbauld actually sought to inhibit women's progress. However, recent studies have proven that women were able to merge domestic life and commitments with ambitions of science and education and that these interests were seen to enhance and encourage womanly duties and social expectations.[38]

Regarding women as writers and the purpose of a Feminiad, Barbauld dismisses the idea of unity among women writers:

> There is no bond of union among literary women, any more than among literary men; different sentiments and different connections separate them much more than the joint interest of their sex would unite them. Mrs. Hannah More would not write along with you or me, and we should probably hesitate at joining Miss Hays, or if she were living, Mrs. Godwin [Mary Wollstonecraft]. (qtd. in LeBreton 86)

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[38] Refer to Patricia Phillips's *The Scientific Lady* and Patricia Fara's *Pandora's Breeches* (London: Pimlico, 2004). See discussion of women and science in Chapter One.

Barbauld also makes very clear that to isolate and identify women's writing as separate from men's would be damaging to the quality of women's writing, stating to Maria Edgeworth, "There is a great difference between a paper written *by* a lady, and *as* a lady. To write professedly as a female junto seems in some measure to suggest a certain cast of sentiment, and you would write in trammels" (qtd. in LeBreton 87).[39] She perceives that writing overtly as a woman would create opposing perspectives, encourage exaggerated and unfairly gendered criticism, and detract from the intended message. Essentially, Barbauld asserts, in an arguably feminist stance, that a consideration of gender in relation to literature creates stereotypes and subsumes freedom.

Despite Barbauld's claim that there can be no unity among female writers and her concerns about focusing on the gender of authors, recent scholarship has suggested that there is a lot of common ground in female writers of the eighteenth and nineteenth centuries. Recognition of these shared concerns leads to a gendered definition of Romanticism. Anne Mellor notes in *Romanticism and Gender* (1993) that there are "significant differences between the thematic concerns, formal practices, and ideological positionings of male and female writers" (2). She draws attention to the reality that "women Romantic writers tended to celebrate, not the achievements of the imagination nor the overflow of powerful feelings, but rather the workings of the rational mind" (2), highlighting the difference between the metaphysical, transcendental, and autonomous preoccupations of the canonical male writers and the women writers' concern with family, community, and other practical responsibilities (Mellor 3). While my project is

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[39] "Junto" (or junta) refers to a small group of people, especially one secretly assembled for a common goal. "Trammel" means to restrain or entangle something (vt), or to limit someone's freedom (n).

not a thorough study of the implications of gender in Barbauld's writings, Mellor's recognition of a division between a "masculine" and a "feminine" Romanticism and her acknowledgement that "women writers of the Romantic period resisted [a] model of oppositional polarity...for one based on sympathy and likeness" (3) are integral to a truly *enlightened* reading of Barbauld's writings, particularly those focused on knowledge, science, and progress. Mellor notes the same variation among women writers that Barbauld identifies, but she looks beyond the specifics to spot the more general similarities. Mellor includes Barbauld in her overview of the dominant female writers that support this community (although her analysis of Barbauld is regrettably sparse). Where others have identified Barbauld's hesitancy and her adherence to conventional roles for women as interpretative obstacles, Mellor reads them as markers of this ideological dichotomy. Barbauld's role as mother and teacher, her preoccupation with guidance, and her emphasis on harmony, development, and progress all speak to women's "celebration of the rational mind" (2) and desire to "create and sustain community" (11). As the following chapters will demonstrate, Barbauld seeks a balance between reason and imagination to aid in the attainment and use of empirical knowledge and the creation of a morally progressive society.

Chapter Three: One Step Forward, Two Steps Back: Negotiation on the "Hill of Science"

In 1773, Anna Barbauld collaborated with her brother John on *Miscellaneous Pieces in Prose.* This popular text consists of several treatises and essays on her views of and beliefs about society and the world around her: as Daniel E. White notes, "From the start, *Miscellaneous Pieces in Prose, by J. and A. L. Aikin* is concerned with identifying opposed communities and establishing balances between their extremes" (521). Barbauld critics inevitably turn to these early writings for cultural context and further insight into her poetry, as her prose works frequently serve to explicate the more abstruse images in her poems. I am no different. In order to clarify Barbauld's ambivalence about objective experimental science and more subjective imaginative thinking as sources of knowledge, I turn to her prose essay, "The Hill of Science: A Vision." "Hill of Science" allegorically describes the human quest for knowledge. This dream-vision, while seeming to direct its attention to the pinnacle of the mountain, is in fact an examination of the many paths and processes available along the way to seekers of knowledge, truth, and understanding. In "Hill of Science," the figure of Application maintains a progressive systematic approach to the climb, suggestive of scientific methodology. Genius, with its suggestion of speculative and subjective imagination, is portrayed as potentially distracting, tempting the seeker with indolence, folly, and passion. Barbauld describes both as viable possibilities for enlightenment if only their respective obstacles could be overcome, yet she refrains from divulging whether these particular figures of Application or Genius ever accomplish the journey. "Hill of Science" not only demonstrates the ambivalence and

confusion that Barbauld felt about both science and imagination, but also encapsulates in their infancy several key concepts that mature in her later work: namely, her sense of moral responsibility and her notion that both objective exploration and subjective awareness are needed to find truth.

In this chapter, I will provide a close reading of the text of "Hill of Science." Very little has been written about this piece, and the coverage it has received is quite general. "Hill of Science" is an intricately woven mélange of images, allusions, and implications, and a full understanding of it cannot be achieved without a detailed unwrapping of its many layers. Following the close reading, I will briefly discuss the work in its biographical and cultural contexts, indicating how the difficulties in interpreting "Hill of Science" relate to Barbauld and her worldview.

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Whenever truth stands in the mind unaccompanied by the evidence upon which it depends, it cannot properly be said to be apprehended at all.
—from *An Enquiry Concerning Political Justice* (1793), William Godwin

The "Hill of Science" is notable for its lack of decisiveness; neither does science nor imagination either triumph or fail. This apparent lack of resolution is symptomatic of Barbauld's commitment to negotiation between the tangible and the inexplicable. She denies the reader and the traveller the opportunity to fully endorse a single model for learning, and she blurs distinctions to encourage a deeper reflection upon the merits and shortcomings of each model. By focusing her attention on the various available trajectories, Barbauld forces readers to think for themselves and arrive at their own interpretation of the most effective methodology. Barbauld painstakingly outlines the

diverse options available to a traveller seeking knowledge and describes the motivations and distractions that are acting on mankind in the search for absolute truth. Barbauld's "Hill of Science" is thus not straightforward, and because the reader's impressions are always changing, discussion is somewhat problematic. Attempting to isolate a concept without confronting how it overlaps with another concept is virtually impossible. The ability to completely answer a question or achieve a definitive opinion is equally challenging. Repetition and equivocation in the text are unavoidable. I argue that the difficulties these features present to the reader are part of the point Barbauld is making.

One apparently definitive statement is that science is related to truth: "The mountain before thee...is the Hill of Science. On the top is the temple of Truth, whose head is above the clouds, and whose face is covered with a veil of pure light" (164). On the top of the mountain "the air was always pure and exhilarating, the path shaded with laurels and other evergreens, and the effulgence which beamed from the face of the Goddess seemed to shed a glory around her votaries. Happy, said I, are they who are permitted to ascend the mountain!" (169). Barbauld implies that there is an enlightened realm of unambiguous knowledge, without "clouds" to obscure understanding. The route there is not without its difficulties. It is deceptive in its simplicity, for each new peak, each new discovery, only serves to reveal the next hill that must be climbed before the ultimate summit is gained:

> I observed that those who had but just begun to climb the hill, thought themselves not far from the top: but as they proceeded, new hills were

> continually rising to their view; and the summit of the highest they could before discern, seemed but the foot of another... (164)

Besides, "The road was rough and stony, and rendered more difficult by heaps of rubbish, continually tumbling down from the higher parts of the mountain, and by broken ruins of ancient buildings, which the travellers were obliged to climb over at every step" (165). In other words, future progress must contend with the ideas of the past, the "rubbish" of earlier civilizations that "harangue the multitude below with the greatest marks of importance and self-complacency" (165). Scientific advancement requires perseverance, inquisitiveness, and a desire for self-improvement in order to—literally here—get beyond the past, and Barbauld contrasts the inquisitive adventurers on the mountain with those who have resigned themselves to what is supposedly proven as fact.

It appears as though standard classical training of the eighteenth century and its link to the past—as represented by the fragments of ancient civilizations—is preventing humanity from reaching the peak of knowledge. Barbauld describes passing through "the only regular approach" (164), a gate presided over by Memory, and being confronted with a "confused murmur of jarring voices, and dissonant sounds...I was utterly confounded, and could compare the noise to nothing but the confusion of tongues at Babel" (165). By accepting the traditional or "regular" method of acquiring knowledge, namely by absorbing history through memory, one is not doing any genuine forward thinking. By not venturing to experiment or seek further information, the goal of absolute truth will be thwarted through narrowmindedness. Barbauld's description of the "wood of Error" (165) further critiques classical attitudes about knowledge. It is a "thick

forest covered with continual fogs, and cut out into labyrinths, cross alleys, and serpentine walks, entangled with thorns and briar" (165). I would argue that the wood of error, with its images of entanglement and confusion and the "voices of many who were lost up and down in it, calling to one another, and endeavouring in vain to extricate themselves" (165), alludes to the mystification and assumptive nature of seventeenth-century thought, which fails to answer questions about change and evolution. Again, a traveller's unwillingness to question—and thus to be future oriented—will result in entrapment within the wood of error, being doomed to repeat the same information and attitudes as those who came before. Those who are misled in their search for knowledge find themselves wandering without hope through the wood as it attempts to waylay them with false discoveries, "[shooting] their boughs over the path" (165) and resting a thick mist upon it.

First impressions suggest that objective, experimental science is the path to truth and enlightenment, but one cannot ignore the presence of a subjective, more imaginative essence.[40] Allegorized as GENIUS, this alternative kind of energy highlights the potential weaknesses of the strictly scientific route.[41] It does not, however, assert itself as the ultimate course of action for the traveller. Barbauld begins her dream-vision in an imaginative, natural setting, describing "that season of the year when the serenity of the sky, the various fruits which cover the ground, the discoloured foliage of the trees, and all

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[40] Interestingly, Barbauld does not use the term *imagination* anywhere in the "Hill of Science," even though she does use the term *reason*. I contend that through the character GENIUS and the imagery/allusions she employs to describe it, Barbauld depicts the kind of individual creativity associated with Romanticism and (typically male) imagination.

[41] The significance of GENIUS, and his objective counterpart, APPLICATION, will be discussed in detail later in the chapter.

the sweet, but fading graces of inspiring autumn, open the mind to benevolence, and dispose it for contemplation" (163). This is a clear image of the writer gaining artistic strength from nature. Yet, nature is not in its purest form; fruits have fallen from the trees, the leaves are not vibrant but are instead "discoloured," and creative inspiration is fading. This passage anticipates Keats's ode, "To Autumn," in its link between imaginative release and imminent death. However, Barbauld's autumn description does not present the death of nature, but rather highlights the limitations of imagination and the necessity of scientific exploration for civilization's improvement. She continues with the natural imagery but incorporates the urban, technological world:

> I sat me down on the fragment of a rock overgrown with moss, where the rustling of the falling leaves, the dashing of waters, and the hum of the distant city, soothed my mind into the most perfect tranquility ... as I was indulging in the agreeable reveries which the objects around me naturally inspired. (163)

Nature and technology are both depicted as important in Barbauld's worldview. The imaginative inspiration of nature is enhanced by the urban environment, which adds a new dimension to an accepted ideal of natural inspiration.

The Muses feature prominently in the "Hill of Science." Traditionally represented as the nine daughters of Zeus and Mnemosyne, the goddess of memory, the Muses preside over the creative arts and are the source of mankind's imaginative inspiration. Barbauld complicates the accepted understanding of the Muses' role in her piece by asserting their imaginative qualities while simultaneously appearing to

undermine their significance. The bowers of the Muses are the "pleasantest part of the mountain" (166), immediately set in contrast to the wood of error and the hard, littered path of the mountain that every traveller must encounter. Near the bowers are located the "fields of Fiction" (166) and the "dark walk of Allegory" (166). Like the bowers, these areas are in a state of sensuous perfection: the fields hold wild flowers of the "greatest luxuriance, of richer scents and brighter colours than I had observed in any other climate" (166), while the walk is "so artificially shaded, that the light at noon-day was never stronger than that of bright moonshine" (166), giving it a "pleasingly romantic air for those who delighted in contemplation" (166). The importance of reflection and consideration are clear in the location of these centers of imagination, halfway up the hill and following the wood of error. Barbauld suggests that the path of knowledge does not have to consist of only hard labour and toil, but can also be contemplative, enjoyable, and even restful. She encourages subjectivity on the way to knowledge and truth by creating these sites of meditation.

This conventional adaptation of the Muse becomes complicated as Barbauld seems to align these figures with temptation and distraction. She writes, "I saw, with some surprise, that the Muses, whose business was to cheer and encourage those who were toiling up the ascent, would often sing in the bowers of Pleasure, and accompany those who were enticed away at the call of the Passions" (167). The idea of creative improvement that Barbauld advocates in her earlier description of the Muses is now associated with deviation from the path of knowledge. Not only does it appear to contradict the Muses' role as supporter of imagination, but it also serves to destabilize the

importance of creative imagination and subjectivity that Barbauld earlier established. Yet, even as she seems to destabilize one thought with another, she immediately subverts this new thought with a reevaluation of it: "They [the Muses] accompanied them, however, but a little way, and always forsook them when they lost sight of the hill" (168). The Muses are still dedicated to the pursuit of knowledge, truth, and progress. They are not, as could easily be interpreted, set against the idea of scientific discovery, but are instead in favour of it and its creative potential. There is recognition in this description of the Muses and their responsibility on the mountain of the need for imaginative subjectivity, the need to explore oneself as well as the world. Barbauld portrays an affinity between objective examination and subjective speculation when both are dedicated to improvement. By having the Muses accompany the travellers on their imaginative digressions, she implies that these are necessary detours required for complete understanding. But, in also having the Muses desert those travellers who deviate too sharply from the path to knowledge, she cautions the reader against the dangers of individual hubris. A seeker of the truth must be willing to understand the internal as well as the external, but is advised against descending into the baser aspects of human nature.

The baseness of human nature and the omnipresent danger of succumbing to it account for much of the tension between imagination and reason for Barbauld in most of her writings, and particularly in "Hill of Science." On the hill located near the bowers, fields, and walks of imagination, are the "cells of Ignorance" and the "mansions of Misery" (168), areas dominated by the "numerous crowd of Appetites, Passions, and

Pleasures" (167) as well as Indolence. These cells and mansions are the ultimate destination of those who attempt to replace diligence with the reckless pursuit of pleasure. Barbauld is quick to point out that while pleasure is not to be avoided entirely—after all, the Muses do sing in the bowers of Pleasure—the complete surrender to amusement and desire is ill advised. Those who fail to seek enlightenment find themselves captives, chained to tyrants who do not resort to "open hostilities" but are content with "retarding their progress" (168). Those who succumb to Appetite, Passion, Pleasure, and Indolence are completely unaware of their captivity; the "unhappy captives still turned their faces towards the temple, and always hoped to arrive there; but the ground seemed to slide from beneath their feet" (168). Conversely, those who do return to the path discover that "the asperities of the road were more severely felt, the hill appeared more steep and rugged, the fruits which were wholesome and refreshing, seemed harsh and ill-tasted, their sight, grew dim, and their feet tripped at every little obstruction" (167). The fundamental warning is against the perils of Indolence. This female figure is delicately described as "gentle," "languid," and "so little formidable in her appearance" (168). Because her realm is a sharp contrast to the mountain's demanding path, she is enticing to weary travellers. What initially begins for the travellers as a feeling of "placid serenity" (169) changes

> by degrees into a melancholy languor, which was tinged with deeper and deeper gloom as they glided down the stream of insignificance; a dark and sluggish water, which is curled by no breeze, and enlivened by no murmur, till it falls into a dead sea, where the startled passengers are

awakened by the shock, and the next moment buried in the gulph of Oblivion. (169)

The captives of Indolence are trapped in a self-perpetuating cycle of despair; they are unable to summon the interest to seek their own improvement, yet they are kept aware of their failings, enhancing their despondency. Those who are apprehensive of hard work are the most susceptible to Indolence and the other tempters, but as Barbauld's description of the "stream of insignificance" indicates, the imagination cannot work at the height of apathy either; no breeze or murmur prevails on the stream. Barbauld subtly enhances the affinity between reason and imagination by pointing out that they both require work.

Through an examination of both those who attempt to ascend and those who reside upon the mountain, she is able to subtly compare science and imagination. The Hill of Science is heavily populated by personified beings, representing many aspects of human nature. Barbauld contrasts humanity's riskier traits, such as Appetite, Passion, Pleasure, and Indolence, with our more admirable characteristics: Application, Genius, and Virtue. It is notable that Barbauld does not explicitly allegorize either imagination or science, though she alludes to them.

Barbauld isolates two primary travellers from the multitudes attempting the ascent: Genius and Application. Genius is heavily associated with imagination and creative inspiration, as evidenced by the description of his passionate countenance:

> [I] observed amongst them a youth of a lively look, a piercing eye, and something fiery and irregular in all his motions. His name was GENIUS.

> He darted like an eagle up the mountain, and left his companions gazing after him with envy and admiration. (166)

Conversely, Application is a character implicitly linked to ideas of reason and methodical deduction. He is a traveller of "a very different appearance" (167), described as patient, committed, and above all, methodical:

> He crept along with a slow and unremitting pace, his eyes fixed on the top of the mountain, patiently removing every stone that obstructed his way, till he saw most of those below him who had at first derided his slow and toilsome progress. Indeed there were few who ascended the hill with equal and uninterrupted steadiness. (167)

Both Genius and Application are notable for their perceived rate and level of progress but also because of their disparate methods of ascent. They represent the extreme approaches to understanding. Genius embraces the intuitive leaps fueled by imagination whereas Application prefers the approach of encountering, examining, and overcoming obstacles, representative of a reasoned, analytical methodology.

Barbauld's allegorization of Genius and Application provides one of the few moments of clarity in the "Hill of Science." While both figures stand apart from the crowd and demonstrate enhanced progress towards the temple of truth, Application is given precedence over Genius. Genius's impulsiveness is contrasted negatively with Application's dedication. Though powerful, Genius is described as "wasting his strength with eccentric flights" (167) and susceptible to "a thousand caprices" (166), resulting in progress that was so irregular that "his feebler companions outstripped him" (167).

Barbauld again implies the danger of succumbing to an inherent baseness associated with imaginative exploration, as Genius makes many ill-advised "excursions from the road" and "delight[s] in devious and untried paths" (167). Genius is particularly susceptible to the appetites of human nature: "When Pleasure warbled in the valley, he mingled in her train. When Pride beckoned towards the precipice, he ventured to the tottering edge"(167). While these hazards delay him, Barbauld refrains from making him a captive; however, she observes that while the "Muses beheld him with partiality...Truth often frowned and turned aside her face" (167). Imaginative intuition is clearly useful as a tool for heightened awareness, while the steady, progressive pattern of reason appears more immune to the follies of human nature. This line of thinking anticipates Barbauld's admonition against the kind of self-indulgent imaginative meandering she believes Coleridge to be a victim of in "To Mr. S. T. Coleridge."

At the end of "Hill of Science," Barbauld appears to direct her attention away from the approach and focus on the goal of Truth. The top of the mountain is crowned in "air [that] was always pure and exhilarating...shaded with laurels and other evergreens" (169) and bathed in the brilliant radiance of the Goddess's glory. Barbauld, at this point, envisions the attainment of absolute truth as the pinnacle, exclaiming, "Happy...are they who are permitted to ascend the mountain" (169). Happiness and contentment appear to be contingent on achieving the summit, rather than the process of getting there. But Barbauld, even as she makes the pronouncement, negates this message by simultaneously noting the very "uncommon ardour" (169) felt as she speaks. The narrative vacillation unsettles the authority inherent in such a proclamation and allows for another shift in

Barbauld's awareness. Barbauld becomes aware of a new figure on the mountain, VIRTUE, who stands beside the speaker looking at the temple of Truth. Barbauld describes her as a figure of "diviner features and a more benign radiance" (169) than the Goddess in the temple. VIRTUE counters Barbauld's earlier declaration of happiness, stating, "Happier are those whom VIRTUE conducts to the mansions of Content...Science may raise you to eminence, but I alone can guide you to felicity" (170). With the introduction of felicity, the objective of the travellers on the Hill of Science is reassessed. Now, rather than seeking the sublime goal of absolute truth, the climbers seek to discover knowledge that will make them content. Barbauld does not seek to define happiness or contentment; they remain as individual and personalized concepts defined by the needs and desires of those who seek them. Rather than striving to reach a pinnacle and gain ultimate knowledge, the process of understanding and its connection to personal integrity is emphasized. When questioned as to her location, Virtue replies:

> I am found...in the vale, and I illuminate the mountain. I cheer the cottager at his toil, and inspire the sage at his meditation. I mingle in the crowd of cities, and bless the hermit in his cell. I have a temple in every heart than owns my influence; and to him that wishes for me I am already present. (170)

The idea of knowledge is humbled. With the perspective of seeking felicity before notoriety in the pursuit of knowledge, guidelines for appropriateness are implied. Knowledge for knowledge's sake is no longer foremost; instead, searching for that which

creates happiness in an appropriate and pleasing manner is seen as far more important. Knowledge is also made accessible. As this reading of "Hill of Science" demonstrates, understanding and truth are not attainable along a single path. Knowledge and truth are multifaceted and individually shaped by those who seek them. So by redefining the goal, Barbauld reflects on various methods of approach. Progress is not granted to those who stubbornly adhere to a single path, but to those who are constantly assessing their methodology and purpose. The uncertainty and reservation characteristic of "Hill of Science" indicates Barbauld's evolving perception of science, which involves the awareness that something more than advancement has to be considered. The most decisive moment emerges at the end of "Hill of Science," when the Goddess Virtue posits something beyond that revealed by science alone. Barbauld ends "Hill of Science" with the speaker's disorientation and uncertainty upon her abrupt awakening and her return home to meditate on the vision, reinforcing the need for contemplation and assessment before reaching a conclusion.

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Apathy can be overcome by enthusiasm, and enthusiasm can only be aroused by two things: first, an ideal, with takes the imagination by storm, and second, a definite intelligible plan for carrying that ideal into practice.

—Arnold Toynbee

Barbauld's Dissenting heritage greatly impacted her approach to science. Raised in an environment of questions, contemplation, and evaluation of all the standards and precepts of established society, Barbauld could not help but be critical and radical in her reflections on science, imagination, and truth in her dream-vision. "Hill of Science" was composed and published during her tenure at Warrington and while under the influence

and guidance of intellectuals such as Joseph Priestley and Gilbert Wakefield. It is clearly evident in her appraisal of fundamental concepts of knowledge, truth, and the path to enlightenment that she was not immune to the same ambition that drove these men to understand the world and their place within it. At several points in "Hill of Science," Barbauld appears to anticipate Priestley's 1774 statement: "I have rather courted, and provoked opposition, because I am sensible that it is the only method of discovering truth" (Brooke 29). As I have shown, her vision is plagued with inconsistencies and reevaluations that force the reader to reconsider the earlier statements and reassess Barbauld's position on any given subject. Barbauld characteristically presents one idea in a seemingly fleshed out manner, then almost immediately reneges on her convictions. As we saw, she initially describes the necessity of the creative imagination symbolized by "the Muses, whose office it was to cheer the spirits of the travellers, and encourage their fainting steps with songs from their divine harps" (166). Yet she also describes the inherent dangers of succumbing to the pleasures and appetites that surrender to complete imagination can cause. In a single passage, Barbauld turns praise and admiration into concern and caution. The ambivalence of her ideology has troubled generations of critics, but can be read as a logical symptom of her Dissenting beliefs.[42] John Brooke notes that "the most significant advance for the development of Rational Dissent was not so much doctrinal...as the willingness of tutors to grant their students the right of private

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[42] Refer to William Woodfall's review of *Poems* in the 1773 *Monthly Review* and Catherine Moore, Mary Ellen Bellanca, et al. for examples of this consternation. In "The "Joineriana": Anna Barbauld, the Aikin Family Circle, and the Dissenting Public Sphere" (*Eighteenth Century Studies* 32.4 (1999): 511-33), Daniel E. White discusses *Miscellaneous Pieces in Prose* as a Dissenting text in detail, paying attention to "Hill of Science" as an endorsement of nonconformity.

judgment" (31), something for which Warrington Academy was noted. These ideas are also represented in "Hill of Science." The narration of the piece is driven by the journey of the individual. While the ultimate goal of enlightened knowledge is suggested, it is not, finally, where Barbauld devotes her energy. Rather, her focus is on the personal motivations and distractions of individual travellers as they try to advance up the hill. It is the steps they take along their various paths, rather than the final destination that matters.

Barbauld is keenly interested in the circumstances leading to progress. Progress for Barbauld is often a problematic concept. As Catherine Moore points out, "Although Barbauld is frequently supportive of human progress through science, she also exhibits moments of pessimism and revulsion" (196). Moore is referring directly to the poem "Dialogue in the Shades," but the sentiment is equally applicable to "Hill of Science." The vision of travellers toiling uphill against countless obstacles towards an uncertain goal is the very essence of wearying progress. That many of Barbauld's travellers fail to reach the pinnacle of the mountain further illustrates the pessimism that Moore identifies in Barbauld's later work. The anxiety about progress and its ultimate destination, particularly with regards to science, is again symptomatic of her Dissenting background. The social, religious, and political change that Dissenters lobbied for during the eighteenth and nineteenth centuries appears clear cut enough: to place all men on equal footing without discrimination against religious belief, thereby allowing them access to political and social positions otherwise unavailable to them. However, the greater ramifications were unknown to them. They could foresee that the changes they sought

would inevitably ripple through society, but they were unable to predict precisely what those changes would be. The best the Dissenters could hope for was that their vision of progress would alleviate superstition and blind faith. As Joseph Priestley writes in 1774 about the purpose of his scientific work, "The rapid process of knowledge will, I doubt not, be the means under God of extirpating all error and prejudice, and of putting an end to all undue and usurped authority in the business of religion as well as of science" (qtd. in Ruston 28). The process of moving up the "Hill of Science" accurately defines the reality of scientific progress, which involves questions that, when answered, only lead to further questions. Barbauld maintains the role of observer, creating even more of a sense of uncertainty as the reader is left with the speaker's individual observations. With every observation, there is the possibility of several eventualities, but none of them is ever realized or even articulated. Barbauld refrains from answering any of the questions or leaving civilization with any kind of an ultimatum or edict to follow. There are no directions or commands articulated to the reader—no specifically didactic content. And the narrator is advised by her own Genius at the beginning to "Observe the progress of her votaries; be silent, and attentive" (164). Any kind of influence on the travellers is strictly and immediately denied, emphasizing the individualized quest for knowledge. All perceptions and decisions for traveller, narrator, and reader must occur independently.

Skepticism is pervasive in "Hill of Science." As discussed earlier, there is a lack of decisiveness in the text. Options, alternatives, and possibilities are presented but conclusions are rarely offered. Closely linked to the skepticism found during the latter half of the eighteenth century and developing into the inquisitive and critical tendency

associated with Romanticism, is the concept of contraries and negations. In his *Marriage of Heaven and Hell*, Blake stated, "Without Contraries is no progression" (Plate 3: 34). Barbauld is equally dialectical. At the most fundamental level, it is noticeable in the way poetry and science are seen to be in conflict. Throughout the dream-vision Barbauld juxtaposes the characteristics of imagination and reason through allegory and physical description. She refrains from declaring an ultimate favourite. Despite the negatives associated with either approach to knowledge, mechanistic or imaginative, neither route is depicted as any easier than the other when tackled alone. Instead she indicates the necessity of mediation between the two. A purely imaginative approach is destructive, as the travellers falls victim to appetites, passions, and indolence, trapped in the cells, chains, and mansions of misery, and constantly distracted from their purpose. Scientific application is slow and arduous and, while eventually effective, it is frequently mired in presumptions and prescriptions. Rather than selecting one route and adhering to it, Barbauld's Goddess speaks of variety. The figures representing different methodologies in "Hill of Science" are singlemindedly devoted to their chosen manner of ascent, yet none is granted fulfillment. As Genius denies reason and Application denies imagination, they both refuse the assistance that each could provide to the other. Barbauld never denies that progress will occur or that knowledge will be gained by following either the path of Genius or that of Application.

By way of conclusion, it is important to note how Barbauld's allegorizations are gendered, particularly in light of my earlier discussion of women and science. Moreover, gender is connected to the idea of moral responsibility with which "Hill of Science"

concludes. Barbauld's travellers, Application and Genius, are gendered male, as is the initial figure of the speaker's genius (her guardian spirit) that approaches the narrator at the base of the mountain. The Muses are traditionally represented as women and Barbauld also genders Memory and Truth/Virtue female. The Appetites, Pleasures, and Passions remain gender neutral, presumably because these are foibles to which everyone is potentially susceptible. Barbauld obviously envisioned the active pursuers of knowledge in the absence of moral consideration to be masculine, while those characters that recognize the connection between knowledge and morality are cast as women.

Barbauld's gender breakdown, however, does not correspond to the traditional gendering of reason and imagination. Genius and Application—the representatives of reason and imagination—are male, linked by their equally ambitious desire to reach the temple, keeping their "eyes fixed on the top of the mountain" (167). The female figures, on the other hand, are more focused on process than on product. They support the quest for knowledge, but they believe it must be governed by the wisdom of humility and of reflection, contemplation, and meditation. Memory sits by the gate of languages at the foot of the mountain, "a woman of a pensive and thoughtful appearance, whose lips were continually moving, as though she repeated something to herself" (164). Although she allows the journey of the travellers to begin, her presence serves to remind them of the need for reflection. The Muses, as well, encourage the travellers to strive for the summit, but remind them also of the need for the contemplation of beauty and pleasure. Virtue, as a female deity, provides an encompassing benevolence and equality over the mountain. Where the Goddess on the mountaintop spreads an "effulgence" (169) of glory about her

votaries, it is a brilliantly blinding light which is contrasted by the far more kind and gentle disposition of Virtue's "benign radiance" (169). Virtue's presence invokes nurturing, natural images of Mother Earth, Venus, and Gaia, among others.[43] With Virtue's key phrase, "Science may raise you to eminence, but I alone can guide you to felicity" (170), as well as her presence among all walks of life, Barbauld forces an awareness of a natural, developing element to knowledge and an understanding of equality among seekers of enlightened knowledge. Again, no precedence is given to any character of either gender. Men and women are equally eligible to pursue knowledge and truth. Barbauld demonstrates her uncertainty about the purpose and direction of conventional science by cleverly adjusting the schematics of mechanism and experimental science and inserting the female presence in a simultaneously encouraging yet advisory role.

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"Hill of Science" is, as Jane Stabler notes in her brief discussion of the piece, a "testing of the bounds of propriety" and an understanding of "the confusion between the moral value of the search for truth and the aesthetic value of the imaginative genius" ("Space" 198). That being said, the dichotomy of morality and aesthetics easily correlates with the concept of contraries; neither negates the other, instead, they frequently serve to influence each other. Where "Hill of Science" admirably succeeds is in drawing attention to the *need* to look for the purpose driving both imagination and

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[43] Refer to Carolyn Merchant's *The Death of nature: Women, Ecology, and the Scientific Revolution* (1982) specifically Chapters 7 ("Dominion Over Nature") and 8 ("The Mechanical Order") and Ludmilla Jordanova's *Sexual Visions* (Madison, Wis.: U of Wisconsin P, 1989) for detailed discussions of gendered representations of science in the seventeenth, eighteenth, and nineteenth centuries.

scientific endeavour. It is this contemplation of purpose that makes Barbauld unique and interesting. The themes Barbauld struggles with in "Hill of Science" are developed more concretely in several of her poems. Chapter Four will discuss in detail such poems as "The Mouse's Petition," "An Inventory of the Furniture in Dr. Priestley's Study," "To Mr. S. T. Coleridge," "Washing-Day," and "The Invitation," in order to demonstrate Barbauld's vision of social morality and to discuss how it correlates with her ambivalence about science, imagination, and human progress.

Chapter Four: Reason, Imagination, and Morality: Separate or Symbiotic?

As chapter three's reading of Barbauld's "Hill of Science: A Vision" makes clear, Barbauld has trouble making and maintaining a decision about imagination or reason as the most effective means of social progress. This is also found in examples of Barbauld's poems about science, particularly "The Mouse's Petition," "An Inventory of the Furniture in Dr. Priestley's Study," "To Mr. S. T. Coleridge," "Washing-Day," and "The Invitation," each of which depicts and explores various facets of her shifting ideas about the roles of science and imagination in society. For Barbauld, connecting but also complicating these shifts is an underlying theme of conscientiousness and sympathy, faculties essential for the betterment of the individual person and society as a whole. The fluctuation in Barbauld's depictions of science and imagination, fact and intuition, derive from her sense of a person's moral responsibility as a member of society. She simultaneously embraces the need for progress and yet fears the potential corruptibility inherent in advancement and the shifts it causes in social and political authority. At times, as in "The Invitation," her poetry advocates and embraces scientific pursuit and the development it promises. Elsewhere she expresses a strong sense of trepidation about the potential damage extreme scientific objectivity, as demonstrated in "The Mouse's Petition," or extreme imaginative subjectivity, such as in "To Mr. S. T. Coleridge," could cause society's sense of morality. Barbauld was committed to the belief that all knowledge, be it garnered through experimental science or imaginative intuition, should promote moral responsibility and benefit society. As a result, a sympathetic awareness of the world and a link between material and spiritual interests are ideas that are present in

Barbauld's poetry. Taking into account the complexity of these ideas and the changeability of Barbauld's own perspectives, I will further explore Barbauld's attitudes about science and poetry and how she saw them as both improving society and limiting it.[44] I will discuss Barbauld's desire for a symbiotic relationship between science and poetry as the best way to achieve her goal of socially conscious and morally responsible progress.

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Science is nothing but developed perception, interpreted intent,
common sense rounded out and minutely articulated.
—from *The Life of Reason*. George Santayana

Barbauld is frequently hesitant about the roles science and imagination might play in society, and she seeks through her poetry to determine how they can best be used. Barbauld believed that science and imagination, even when pursued with the best of intentions, could still lead to negative consequences if followed injudiciously. Man must adhere to an instinctive set of guidelines. R. S. White, in his book *Natural Rights and the Birth of Romanticism*, contends that all historical movements for human rights and equality stem from "an insistence that innately, within every human being, is a knowledge that some things are right and some things are wrong" (1). White's argument relies on the morally charged philosophy of Adam Smith.[45] Barbauld also holds this belief. As "Hill of Science" demonstrates, humankind can be misled or distracted from

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[44] To reiterate, science in the sense of this study is not wholly natural philosophy, although it is still integral at this point in history. Science and progress develop a more commercial, calculative connotation, where man is now a manipulator of nature for gain. For Barbauld, poetry and imagination maintain a link to the natural, rural world, emphasized by memory and nostalgia.

[45] See Chapter One for a discussion of Adam Smith.

the path of morality in the pursuit of absolute truth. While Barbauld recognized a natural tendency to become immersed in the emotional, passionate aspects of reform, she was also aware that subjectivity could alter a person's intention. In poems like "The Mouse's Petition" and "To Mr. S. T. Coleridge," she takes the position of the sympathetic, morally aware, and impartial spectator to create an awareness of the dangers of scientific objectivity and imaginative subjectivity and to instill a sense of moral integrity. Her poetry takes the form of constructive criticism, neither denying nor endorsing either, but rather forcing the scientist and the poet to review and evaluate their intentions.

White notes that during the late eighteenth century, writers' goals were "not primarily affectivity and emotional indulgence, but rather the didacticism that teaches broad social sympathy and benevolence of action" (42). Barbauld demonstrates this desire for instructional poetry. In "The Mouse's Petition," for instance, she does not only want her readers to sympathize with the mouse during the reading of her poem; she wants those feelings to mobilize readers into prolonged contemplation and possibly to action. Marlon B. Ross attributes this intention to her involvement in the Dissent movement: "As a dissenter, Barbauld …refuses the distinction between moral theory and practice and views the conduct of middle-class dissenters as universalizable in its exemplarity" (96). Dissenters place great emphasis on the power of the individual to *enact* change and, as Ross points out, "[t]he dissenting woman writer takes seriously the idea that small, daily experiences determine the grandest principles of conduct. Because no line can be drawn between what is preached and what is practiced, only the practice of living can be trusted to instill virtue" (98). Female reform writers like Barbauld attempted to incorporate the

expectations of female composition – the recording of the "small, daily experiences" – and social/political issues into a single entity that resonated with the reading public. Gary Kelly notes that for women writers in general the "study of the local, domestic, and the "real" could enable those relegated there to participate in national and political issues" (165). Similarly, Ross, speaking directly of Barbauld, states that rather than "blunting the edge of her political agenda, the form serves to sharpen the calamitous consequences that must befall the unprincipled conscience" (98). The occasional form prevented her poems from becoming overt polemics, and allowed her to tackle such controversial issues as scientific progress without a loss of decorum. As I will show, Barbauld forces the reader to acknowledge the social and/or political agenda underlying her verse, and through a variety of strategies, engages the reader in an "exercise of reading, an exercise of moral, intellectual, *and* aesthetic judgment" (Kelly 170).

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Parcere subjectis, & debellare superbos.
[To spare the humbled, & to tame in war the proud.]
—from Virgil's *Aeneid*, motto from "The Mouse's Petition"

Much of Barbauld's poetry about science was influenced by her friendship with the theologian-scientist, Dr. Joseph Priestley, during their shared time at Warrington. Priestley taught at Warrington Academy and had married Barbauld's good friend, Mary, and as a result, Barbauld was a frequent guest in their home and privy to the exchanges and ideas produced by Priestley's study of electricity and air. As Chapter Two outlines, throughout her life Barbauld demonstrated an interest in science and technological advancement. With a laboratory as part of his home, Priestley's household provided

Barbauld with early, firsthand experience of scientific experimentation.[46] An interest in science was not the only thing they shared. Barbauld and Priestley shared a concern for social justice and equality and a desire to promote compassion and morality; in her poems about Priestley, Barbauld "stresses his scientific and moral greatness" (Saunders 504). However, even though she was not adverse to scientific advancement and the processes it required, Barbauld wanted scientific discovery to be tempered by compassion and fundamentally directed towards social benefit, rather than simply the pursuit of knowledge for knowledge's sake. In her poems about Priestley, she often uses a critical tone. It is important to note that she was most likely not intending to condemn or direct Priestley himself. Rather, she was using him as her model and employing his desire for honesty, integrity, and accountability in scientific experiment to admonish other, less judicious, experimenters. Two of her poems stand out for their apparent criticism: "The Mouse's Petition" and "An Inventory of the Furniture in Dr. Priestley's Study."[47] It is important to note here that Barbauld's criticism is not necessarily directed only towards the process of scientific discovery, but also to the potential ethical repercussions of the knowledge gathered from experimentation. She envisions the scientist as a potential role model for society and fears that the dissemination of knowledge garnered through unethical means will encourage future unprincipled social behaviour.

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[46] Whether she actually participated, observed, or simply heard about the experiments is still uncertain. However, we can be fairly sure that she would have heard about any developments directly from Joseph and Mary Priestley.

[47] Henceforth, these poems will be referred to in the shorthand form of "Petition" and "Inventory" in the accepted fashion of Barbauld criticism.

The claim of objectivity has long been the validation for and defense of scientific enterprise. During the Enlightenment, it was the ability to separate experience from experiment that solidified the evolution of science from natural philosophy. Scientific accuracy was becoming more accepted and no longer were the prejudices and personal impressions of the philosopher interfering in the pursuit of absolute knowledge. "The Mouse's Petition" was written in an attempt to draw the scientist out of the "sealed bell-jar of the laboratory" (Saunders 502) and acknowledge the ramifications of scientific experiment in a wider context. Barbauld does not deny that the knowledge garnered through scientific experiment is necessary or that the processes required are not justified. However, her acceptance is qualified. Barbauld believed that any knowledge or progress must adhere to a single principle: it must be relevant and beneficial to society's moral development. In "Thoughts on the Devotional Taste, and on Sects and Establishments" (1775), Barbauld supports the inclusion of science within the context of religion, writing, "Philosophy does indeed enlarge our conceptions of the Deity, and gives us the sublimest ideas of his power and extent of dominion" (*Works* ii 237). Within the Dissent movement, science was viewed not as a way to deny faith but to enhance it and to make religion an integral and cohesive part of daily life. Barbauld's concept of moral development emerges from Dissent's religious belief that all men are capable of rationalizing faith with experience. Barbauld acknowledges a connection between faith and science, but goes on to caution that the pursuit of objective, absolute scientific truth might distract man from an innate sympathetic awareness of the world around him and God, arguing that philosophy "raises him too high for our imagination to take hold of and

in a great measure destroys that affectionate regard which is felt by the common class of pious christians" (*Works* ii 237). The scientist should never become so detached that he fails to contribute to society as a whole. Barbauld denies the scientist, as well as the reader, the comfort of detached objectivity in "Petition" by intimately introducing the subject of the impending experiment. The mouse is not only personified and imbued with a strong identity of its own, but is also given a voice loaded with the rhetoric of abolition and parliamentary reform. Barbauld infuses the mouse with the same open-mindedness that she encourages in a socially responsible scientist. The mouse ultimately becomes a model of benevolence for the scientist. By denying pure scientific objectivity and insisting on recognition of the mouse's subject position, Barbauld hopes to reorient the scientist towards an ethical rationale for experimental procedures.

The title of "The Mouse's Petition" is significant. When "Petition" was originally published in *Poems*, the title was considerably extended: "The Mouse's Petition: Found in the trap where he had been confined all night by Dr. Priestley, for the sake of making experiments with different kinds of air." Immediately, the reader questions the integrity of scientific experimentation. The two possible interpretations of the word "sake," one to mean for the benefit or welfare of something else, the other for the purpose of obtaining and achieving, suggest ambivalence, in general, about the motivations behind experimentation and, specifically, a scientist's ability to truly be objective. By writing the poem in the form of a petition, Barbauld demands that the reader acknowledge the intent and justification of reforming scientific intention. She creates both a specific target for her criticism—the scientist—and a specific activist—the mouse—to lobby for change.

She draws on the political ideology of the petition as a public demonstration to place the reader as the addressee in the position of the scientist and thus potentially implicate him or her. As Marlon B. Ross describes it, "the petition, the most radical version of a political letter,...targets the heart of the established power by directly addressing the monarch and parliament" (98). However, by identifying the speaker not only as a mouse but an entrapped mouse, she emphasizes the disempowerment of the petitioning voice. She identifies a representative for the "established power," Dr. Joseph Priestley, implicating him and the other scientists he represents as the perpetrators of an injustice. The reader enters the poem with the recognition that it is intended to be persuasive and that it will force him or her to think about reform.

Barbauld employs the technique of prosopopeia as part of her personification of the captive mouse. Rather than simply attribute human emotions and characteristics and narrate from the third-person, Barbauld chooses to create a distinct identity and voice for the mouse right from the start, as it pleads,

> Oh! hear a pensive prisoner's prayer,
> For liberty that sighs:
> And never let thine heart be shut
> Against the wretch's cries. (1-4)

The mouse is given a voice of its own and the authority to speak on its own behalf. This empowerment not only makes the idea of a petition that much more potent, but it also serves to undermine the mouse's description of itself as an insignificant "prisoner" (1) and "wretch" (4). Immediately, the scientist and the reader are made aware of the

mouse's own self-worth and identity. Barbauld continues in the first person, drawing attention to the suffering that the mouse endures. She lets the mouse describe how "forlorn and sad I sit, / … trembl[ing] at th'approaching morn, / Which brings impending fate" (5-8). By making the mouse capable of understanding its circumstances and its fate, Barbauld depicts it as a rational being. The belief that the ability to reason was fundamental to the human condition, a belief held by Barbauld, Priestley, and much of eighteenth-century society, heightens awareness of a shared humanity between the mouse and man and the potential for a shared plight. Barbauld's mouse exploits that sense of shared humanity further by assuming that the human scientist will understand its desire for liberty and equality and share its attitudes about tyranny. In stanza three, the mouse hypothetically queries:

> If e'er thy breast with freedom glow'd,
> And spurn'd a tyrant's chain,
> Let not thy strong oppressive force
> A free-born mouse detain. (9-12)

The mouse's rhetoric suggests that if the scientist does share these attitudes, he will not want to be cast in the role of oppressor. The assumption is made that the "free-born mouse" (12) already spurns tyranny and embraces freedom and is hoping to find these attitudes reciprocated in the scientist. This assumption is only made possible by the first-person narration. Because of the prosopopeiac approach, the mouse's sentiments are not being presumed by a narrator and imposed upon a character, but are accepted as fact directly from the source.

The personified and empowered voice of the mouse is enhanced through the rhetoric it employs. English society in the late 1700s was in turmoil over the cause for equal rights, both domestically with Dissent struggle against the Establishment and internationally with the movement to abolish the slave trade. Barbauld strategically appropriates the rhetoric of abolition and human rights to strengthen the voice of her mouse and appeal to the sensibilities of Priestley, a well-known and vocal supporter of liberty and social justice. The mouse describes his situation in terms of entrapment; he is a "prisoner" (1), caught in a "wiry grate" (6), "detain[ed]" (12) and fettered by a "tyrant's chain" (10). There is a pervasive feeling of abandonment and hopelessness that leads to a fear of the future, suggestive of the circumstances plaguing the underprivileged and enslaved members of human society. He has no control over his "impending fate" (8) and is "betray'd" (15) and "den[ied]" (20) by stronger, tyrannical, and "oppressive force[s]" (11). Despite this lack of control, he is still very much aware of his situation and longs for the "liberty" (2) and "freedom" (9) owed to a "free-born mouse" (12). The abolitionist style of expression intensifies the assertion of the mouse's identity and self-worth.

Having compared the scientist's circumstances with the mouse's, Barbauld redirects attention to the actions about to be taken against the mouse, heightening the inhumanity and thus provoking the guilt of the human scientist. The "Petition's" first five stanzas contain images of often cruel and inhumane detachment. The scientist's heart is "shut" (3) and "unrelenting" (19). His intelligence is depicted as a wily and "strong oppressive force" (11). The mouse generates a monstrous identity for the

scientist. Its rhetorical tactics set up feelings of dread and culpability, in stark contrast to the blamelessness of the mouse. The scientist is the source of "impending fate" (8), "triumph[ing]" (15) in the detention, betrayal, denial, and suffering of the entrapped mouse. The scientist is depicted as deaf, blind, and malicious in his objectivity. Barbauld refuses to allow the reader to separate the images of the mouse's innocence from the scientist's inhumane actions. Interspersed throughout these stanzas are reminders of the mouse's innocence. He expresses his feeling of dread as he "tremble[s] at th'approaching morn" (7), knowing that his fate is death, and describes himself as "[a] prize so little worth" (16), seeking only the "slender boon" (20) of a little food. By contrasting the mouse's humbleness and emotional intuition with the objective scientist's brutal indifference to his suffering, Barbauld makes it nearly impossible to endorse such scientific objectivity. Although the mouse is not actually human, it is the scientist who is revealed to be inhumane. This revelation makes the scientist and the reader evaluate the cost of scientific objectivity to a person's humanity and implies that the scientist's actions are not intended for social improvement.

Having developed the mouse's identity and the sharing of emotions and attitudes between mice and men, Barbauld is able to let the mouse address Priestley as an equal and provide the constructive criticism that challenges scientific objectivity and integrity. Stanza six is a pivotal reorientation of the narrative focus. Barbauld explicitly unites mouse and man as recipients of the same fortune:

> The chearful light, the vital air,
> Are blessings widely given;

Let nature's commoners enjoy

The common gifts of heaven. (21-24)

Even if the food is denied, light and air are available to all universally. The language maintains its political liberalism of "nature's commoners" (23), but is "subtly transliterated into moralized sentiment…the poem discourages readers from viewing themselves as members of any political faction but instead enlists them within the 'kindred mind' of humanity" (Ross 99). The phrase "nature's commoners" (23) acknowledges that mice are not in fact men, but still have certain rights as part of nature and a value to God as part of the Great Chain of Being. Barbauld now turns to the issue of the scientist's own awareness of and responsibility for the world around him. Barbauld not only unites their existence, but simplifies it to the lowest *common* denominators, light and air (21). By recognizing that all of "nature's commoner's enjoy / The common gifts of heaven" (23-4) and that these are "blessings widely given" (22), Barbauld simultaneously undermines the presumed superiority of the scientist and bolsters the mouse's petition for equality. With references to common, but essential, naturally occurring wonders as the "chearful light" and "vital air" Barbauld asserts the importance of naturalness and simplicity in society. Barbauld appeals to Priestley to remember nature's gifts and take his cues from them rather than to send society whirling with technological advancement.

The mouse, with his assertion of equality and his intrinsic connection with nature, now has the authority to call attention to Priestley's social responsibility. The mouse further establishes its credibility by employing philosophical arguments about "the

consequences to humans of their own cruelty" (Bellanca 58). Through the mouse, Barbauld states her vision of the morally responsible scientist:

> The well taught philosophic mind
>
> To all compassion gives;
>
> Casts round the world an equal eye,
>
> And feels for all that lives. (25-28)

Barbauld uses the authority assigned to a "well taught" philosopher (25) to heighten the level of responsibility that someone in Priestley's position must accept. No longer can he undertake experiments for the sake of personal curiosity—he must always be aware of his responsibility to "[c]ast round the world an equal eye" (27) and be a role model for all living creatures. Barbauld focuses on a universal benevolence, repeating the word "all" (26, 28) and using the language of sympathy in "feels for all" (28) to create a sense of fellowship. Barbauld also continues the rhetoric of abolition by making it explicit that Priestley's greater understanding of the world must be used compassionately to create an equal and just society. That the ensnared and subjugated mouse voices this admonition to his currently superior captor only enhances Barbauld's assertion that with the scientist's elevated sense of authority, he is now more than ever responsible for his actions and their consequences.

In her article, "'The Mouse's Petition': Anna Barbauld and the Scientific Revolution" (2002), Julia Saunders comments that Barbauld's "preferred representation of science as being just puts her alongside the scientist in a collaborative relationship characterized by constructive criticism" (502). Barbauld places the mouse in the role of

ethicist, remaining open-minded and providing perspective about the course of scientific progress. As Saunders suggests, by using the argument of equality, the mouse "illustrates to Priestley and his fraternity how their private activities figure in a much wider context" (513). Barbauld draws upon Priestley's own, briefly held, belief in transmitigation to demonstrate the potential repercussions of his actions[48]:

> If mind, as ancient sages taught,
> A never dying flame,
> Still shifts thro' matter's varying forms,
> In every form the same,
>
> Beware, lest in the worm you crush
> A brother's soul you find;
> And tremble lest thy luckless hand
> Dislodge a kindred mind. (29-36)

Again, the mouse references a source of authority, the teachings of "ancient sages" (29), to substantiate his argument. The mouse acknowledges that though there are superficial differences in "matter's varying forms" (31) between him and Priestley, they still might share an element of existence: the "never dying flame" (30) of the soul. It warns Priestley that a formerly human soul might belong to the subject of one of his experiments. The mouse then moves away from the rhetorical and hypothetical

[48] Transmitigation is the passage of the soul from one body to another at or after death. Priestley is reported to have believed in this process during the time of his air experiments, although later in life he abandoned the belief.

argument, and provides concrete evidence for his statements. Linking man to another lowly creature—a worm—the mouse offers the perspective of a shared fate. It warns against the potential damage to both the physical and spiritual existence of the scientist from reckless experimentation. In the crushing of the worm, the scientist could destroy "[a] brother's soul" (34) and "a kindred mind" (36). Using experiential action words like "crush" (33), "find" (34), "tremble" (35), and "dislodge" (36), Barbauld forces the scientist and thus the reader to not only witness but experience their own potential destruction. In identifying this complicated connection of inherent life and sentience, Barbauld denies that a researcher can truly be objective. An awareness of the repercussions must be taken into account when creating a model of integrity for scientific progress.

With the idea of a required model of behaviour in mind, Barbauld presents another perspective. The conditional language of "or" and "if" (37) acknowledges that the theory might be wrong, and that the differences between mice and men might be more profound than suggested previously:

> Or, if this transient gleam of day
> Be *all* of life we share,
> Let pity plead within thy breast
> That little *all* to spare. (37-40)

As she did before in stanza six, Barbauld refines the idea of existence down to its most elemental form, "the transient gleam" (37) of daylight or the intangible experience of being alive. Everything is connected at the most basic level. The noun "*all*" (38, 40) is

again repeated, and is here specifically accentuated by Barbauld. Not only does it signify a sense of collective purpose, but it places importance on both the significance of life (38) and its relative fragility (40). The state of being alive is identified as the most fundamental connection among sentient beings, but without "compassion" (26), "pity" (39), and a sense of principles it can easily be ignored and destroyed. In emphasizing "*all*," Barbauld expresses her desire for socially motivated progress and reiterates her contention that maintaining a link with an ethical, simplistic, and natural idea of life is the most important consideration in the pursuit of progress.

In the final two stanzas of "Petition," Barbauld's mouse becomes the model of behaviour for Priestley, the captive showing benevolence to his captor and demonstrating that for which it petitioned:

> So may thy hospitable board
> With health and peace be crown'd;
> And every charm of heartfelt ease
> Beneath thy roof be found.
>
> So, when destruction lurks unseen,
> Which men, like mice, may share,
> May some kind angel clear thy path,
> And break the hidden snare. (41-48)

The mouse appeals heavily to Priestley's conscience, blessing him with all the comforts that the mouse is currently being denied: hospitality (41), "health" (42), "peace" (42), and

"every charm of heartfelt ease" (43). The mouse reminds the scientist that despite all of these trappings of civility, "destruction lurks unseen" (45) and the corruption of his soul is only a misjudgment away. In its clearest statement of purpose, the mouse notes that this is a fate "[w]hich men, like mice, may share" (46). The link between men and mice, the seemingly superior and inferior, is explicit and undeniable. Barbauld cautions that should the scientist, in his pursuit of absolute knowledge and progress, forget about those around him and the implications of his actions, he too could end up in "the hidden snare" (48) of his own blind objectivity without an open-minded and "kind angel" (47) to free him.

The anxiety about the ethical considerations of science that "Petition" embodies is, as Bellanca puts it, "a motif that recurs subtly but persistently in Barbauld's work [about] the dangers inherent in the manipulation of nature by an increasingly technocratic world view" (50). In "An Inventory of the Furniture in Dr. Priestley's Study," Barbauld calls attention to the presumption of scientific relevance. Where Barbauld solemnly emphasizes the consequences of scientific enterprise in "Petition," she takes a different approach in "Inventory," using humour and mock-heroism to demonstrate the potential folly of scientific advancement. Always with an eye to social benefit, Barbauld trivializes the contents of Priestley's study in order to demonstrate the variability of interpretation and purpose inherent in scientific progress.

Scholarly interpretations of "Inventory" are scarce. Both Julia Saunders and Amy Weldon reference this poem in their more comprehensive examinations of other Barbauld poems, remarking upon its disarmingly whimsical nature (Saunders 509; Weldon 7).

However, they reserve their close analysis for the more "serious" poems about science. Humour is indeed integral to this poem, but it should not be considered a reason to ignore it. Rather than weakening her criticism, the amused, satirical tone serves to sharpen the commentary and direct attention towards the recklessness that can accompany scientific enterprise. In her brief discussion of "Inventory," Saunders claims that Barbauld uses humour to "sweeten the biting edge of her wit" (509) and "puncture the bubble of professional mystique" (510). In much the same way that she undermines scientific objectivity to reveal reality in "Petition," Barbauld exposes the potential absurdity of scientific advancement through the detail of "Inventory."

Barbauld trivializes the supposed magnitude of science by describing the laboratory and its contents in a hudibrastic manner. Writing in the characteristic iambic tetrameter and with occasional exaggerated feminine rhymes, Barbauld exploits the mock heroism and borderline absurdity of Samuel Butler's seventeenth-century poem, *Hudibras*, to reinterpret the objects in Priestley's study in order to ridicule their significance:

> A map of every country known,
> With not a foot of land his own.
> A list of folks that kicked a dust
> On this poor globe, from Ptol. the First;
> He hopes,—it is but fair,—
> Some day to get a corner there.
> A group of all the British kings,

Fair emblem! on a packthread swings. (1-8)

Hudibrastic structure relies on inappropriate comparisons to create a humourous effect. Where the mock-heroic style is often associated with the description of trivial things in heroic terms, Barbauld subtly adjusts the convention, describing important and valuable items in such trivial and mundane terms as to make their significance seem ridiculous. McCarthy and Kraft identify the "list of folks" (3) as Priestley's *Chart of Biography* (1765), which documented the lives of 'Statesmen of Learning' through the ages.[49] Though considered an authoritative document, Barbauld denies it a title and renders it insignificant by describing it as only "[a] list of folks that kicked a dust / On this poor globe" (3-4). She then focuses on a wall hanging of the monarchy's succession, "A group of all the British kings" (7), using equally dismissive terms. Barbauld describes this object, again of some importance, as a "Fair emblem!" (8), yet immediately links it with an image of the everyday, lower class, as it "on a packthread swings" (8).[50] One might expect a representation of the British monarchy to be hung with something grander, or at least more substantial, than the twine used to tie paper or cloth packages. Barbauld again highlights the petty in her description of the writings of the Church Fathers:

The Fathers, ranged in goodly row,

A decent, venerable show,

---

[49] See Notes p. 247 of *The Poems of Anna Letitia Barbauld.* Priestley's *Chart of Biography* won him a doctorate of laws from the University of Edinburgh. It was one of many texts he wrote to enrich his Warrington curriculum.

[50] McCarthy and Kraft gloss this couplet as a reflection of Priestley's republican tendencies, interpreting it as Barbauld's "treasonable innuendo ... that [he] ... is hanging the kings" (247n).

Writ a great while ago, they tell us,

And many an inch o'ertop their fellows. (9-12)[51]

Barbauld emphasizes the importance of appearances, describing them as "ranged in goodly row" (9) and presenting a "decent, venerable show" (10). She implies that the authority of these texts might be dubious, as their age is something "they tell us" (11). They have to create a façade of importance by noting their age and towering over the other fellow, yet lesser, texts of Juvenal (13) and Ovid (14) by such a height as "many an inch" (12). By making these and other "inappropriate comparisons" between the noteworthy and the trifling, Barbauld emphasizes the absurdity of pretentious appearances and undermines the consequence given to imposed perceptions.

Barbauld directly satirizes the scientific experiments Priestley is undertaking by describing them in chaotic terms. Barbauld takes this evidence of serious scientific occupation and compares it to a French story. Priestley, well known for his experiments with electricity, has:

A shelf of bottles, jar and phial,

By which the rogues he can defy all,—

All filled with lightning keen and genuine,

And many a little imp he'll pen you in;

Which, like LeSage's sprite, let out,

Among the neighbours makes a rout;

Brings down the lightening on their houses,

---

[51] Lines 11 and 12 demonstrate another example of stretched feminine rhyme, "tell us" and "fellows."

And kills their geese, and frights their spouses. (17-24)

Barbauld uses the elaborate, multisyllabic, and humorous rhymes of "phial" and "defy all" and "genuine" and "pen you in" to accentuate the feeling of science's metaphorical leaps of faith and exaggeration. Using a fictional, comedic example of a mischief-making, laboratory-generated sprite to represent Priestley's electrical experiments, Barbauld further undermines the seriousness of the scientific innovation.[52] Moreover, she draws attention to the chaos science can create as destruction, rather than benefit, is seen as the only consequence. As well, Le Sage's sprite is guilty of revealing secrets, which might suggest that there is always the chance that science might reveal more than society is ready for.

While still maintaining the heroic couplet structure, the latter half of the poem undergoes a subtle change in tone. Rather than the light, tongue-in-cheek mood that characterizes the first half of the poem, Barbauld adopts a more sinister and menacing attitude. She employs grotesque exaggeration when she describes the books holding Priestley's ideas:

Others, a motley ragged brood,
Their limbs unfashioned all, and rude,
Like Cadmus' half-formed men appear;
One rears a helm, one lifts a spear,
And feet are lopped and fingers torn

---

[52] The story refers to the René LeSage's *Le Diable Boiteux* (1707), which describes the release of the spirit, Asmodeus, from a laboratory phial and who exposes the private lives of the neighbourhood by lifting the roofs from the houses.

Before their fellow limbs were born;

A leg began to kick and sprawl

Before the head was seen at all" (44-50)

The images of "a motley ragged brood" (44), "unfashioned" (45), "rude" (45), and "half-formed" (46), point to the inherent uncertainty of what scientific experiment might find or create. Barbauld's most compelling comment on the purpose of science is in her portrayal of Cadmus's men's heads being born *after* their bodies. The implication is that there is a lack of rational forethought prior to the action of experimentation. By using grotesque and anti-heroic images of lopped feet (48), torn fingers (48), and kicking and sprawling legs (49), Barbauld again emphasizes the destructive potential of scientific advancement.

In the final four lines of "Inventory" Barbauld articulates her reservations about scientific pursuits and enthusiasm. Returning to a hudibras-like inappropriateness, she draws attention to the irony inherent in many scientific endeavours:

"What is this," I hear you cry,

"Which saucily provokes my eye?"—

A thing unknown, without a name,

Born of the air and doomed to flame. (55-8)

Critiquing scientific fervor, Barbauld uses the rhyming couplet structure to articulate the scientist's excitement and her disinterested dismissal. The scientist speaks in terms of tangibles exclaiming over something which "saucily provokes [his] eye" (56) but the reader is immediately reminded that this interest is directed towards something that is

intangible, invisible, and transient in its very nature. Barbauld, in this passage, is literally referencing Priestley's experiments with oxygen and other gases, while figuratively she alludes to scientific pursuits that fail to have a lasting effect upon society. Even though the experiments hold significance for the solitary scientist, it is a fleeting significance, "[b]orn of the air and doomed to flame" (58), indiscernible in its creation and fleeting in its existence. Barbauld desires something lasting and beneficial to society if it is to warrant the excitement generated in the scientist.

The strength of this wish for reflective, socially relevant science is embodied in the structure of the poem's end. Barbauld creates a physical moment of reflection by separating the final lines from the main body of the poem with deliberate line spacing and changing the narrative voice. She enacts the evaluating process encouraged in "The Mouse's Petition" and "Inventory" by reflecting on what she has seen in Priestley's study before writing the final lines. The change in narrative voice from a third person observer to the involved first person also heightens the deliberating attitude of Barbauld. The speaker takes an active role in the poem and subsequently in the debate about the merits of scientific pursuits. The familiarity evoked by the title's identification of Joseph Priestley is returned to with the use of the personal pronouns "I" (55) and "you" (55). Barbauld, while emphasizing the need for communication in her creation of a dialogue between differing perspectives, draws upon the familiarity between the two to give her position and argument credence. She is connected to the experience and therefore has a level of authority. Her uncertainty about Priestley's enthusiasm and her reality check

regarding the magnitude of his experiment as something "doomed to flame" (58) becomes all the more powerful for this authority.

* * * * * * * * * *

Science is the great antidote to the poison of enthusiasm and superstition.
—from *The Wealth of Nations*. Adam Smith

Unlike Barbauld's critique of science and empirical process, for which her personal investment was more recreational and distant, her assessment of poetry and its shortcomings involves a close, professional immersion with the subject. She seems less overtly critical of poetry and imagination than she does of science and reason. Nevertheless, Barbauld has opinions about what poetry and the responsibilities of the poet should entail. She questions other poets who deviate from her "noble aims" ("To Mr. S. T. Coleridge" 36) of morally reasoned and concrete poetry, highlighting what she saw as "the dangerous ground" ("To Mr. S. T. Coleridge" 36) of metaphysical abstraction and imaginative enthusiasm. Barbauld's critique of imagination and poetry is grounded in a perception that there is as much a lack of responsibility in imaginative, subjective approaches to thinking as there is in scientific objectivity. In the well-known poem, "To Mr. S. T. Coleridge," Barbauld outlines the moral objectives she envisions as essential to a socially responsible poet.[53]

In March 1800, Coleridge wrote to John Prior Estlin,

> The more I see of Mrs. Barbauld the more I admire her – that wonderful *Propriety* of Mind! – She has great *acuteness*, very great – yet how

[53] Henceforth referred to as "To Coleridge."

steadily she keeps it within the bounds of practical Reason. This I almost envy as well as admire – My own Subtleties too often lead me in strange (tho' God be praised) transient Out-of-the-way-nesses. (*Letters* 1:578)[54]

In Coleridge's brief comment about Barbauld, he outlines the differences between their respective inclinations. Coleridge identifies the self-destructive tendencies that Barbauld later charges him with, though here he embraces them as desirable traits, even as he admires her sense of propriety, and her ability to reason and remain focused. His subtleties, transience, and "out-of-the-way-nesses" all point to a lack of discipline and a tendency towards unreasoned passion that Barbauld identifies as a potential crisis in poetry and as detrimental to social progress. In her discussion of Coleridge's and Barbauld's aesthetics, Jane Stabler notes, there is "confusion between the moral value of the search for truth and the aesthetic value of imaginative genius....Genius, pleasure, and poetry are all shown to be morally ambiguous – but immensely attractive for all that" ("Space" 198-9).

"To Coleridge" is a didactic cautionary tale for the edification of poets, namely young Romantics like Wordsworth and Coleridge, whom Barbauld perceived to be privileging passion and imagination in their pursuit of "high progress" and "eternal truth" (27). A sense of maturity and wisdom permeates the entire poem. Returning to her hill of science allegory, Barbauld identifies the grove of imagination and acknowledges the appeal it holds for the imaginative poet:

A Grove extends, in tangled mazes wrought,

---

[54] John Prior Estlin (1747-1817) was a mutual friend of Barbauld and Coleridge's. He introduced them in August 1797, during a visit to his home in Bristol. "To Coleridge" was composed the same year.

And fill'd with strange enchantment:—dubious shapes

Flit thro' dim glades, and lure the eager foot

Of youthful ardour to eternal chase. (3-6)

Barbauld emphasizes youth throughout this passage, drawing attention to the immaturity and vulnerability of Romantic idealism. She reproves imaginative enthusiasm, describing the poets as having "unpractised feet" (2) and "eager foot" (5) which, without purpose, lead them on an "eternal chase" (6). She acknowledges the appeal of the unknown, the imaginative exploration of "tangled mazes" (3) and "strange enchantment" (4), but notes a lack of foresight in the "dim glades" (5) and "dubious shapes" (4). She returns to the image of youth at the end of the poem, drawing attention to the fickleness of the young Coleridge, who initially embraced scientific study but later drifted into the abstraction of metaphysics: "Youth belov'd / Of Science—of the Muse belov'd" (32-3). The impression of youth is enhanced by the insertion at the end of the poem of a parental figure: "Now Heaven conduct thee with a Parent's love!" (43).

Barbauld does not linger in the debilitating grove, though. She believes that only through dynamic interaction with the world can a poet enact change, and she accentuates this idea through the contrasting notions of passivity and activity. The grove of imagination is a place of "softened light and tender gloom" (29) and pampering (30), appealing to the sensory and selfish side of the human character. As a morally responsible poet, she recognizes that too much time spent in the company of "Indolence" (19) will weaken the mind and the motives. Imagination becomes the "Circe of the

studious cell" (37), seducing the poet away from the improvement of society. Wearing the garb of "deep philosophy" (21) the poet sits

> In dreamy twilight of the vacant mind,
> Soothed by the whispering shade; for soothing soft
> The shades, and vistas lengthening into air,
> With moon beam rainbows tinted. Here each mind
> Of finer mold, acute and delicate,
> In its high progress to eternal truth
> Rests for a space, in fairy bowers entranced; (22-8)

There is no physical action in this passage and even the mental action is stopped in time. The liminal setting of twilight enhances the idea of timelessness—it is neither day nor night—and is heightened by the dream imagery of shades, a moon beam, and rainbows. Perception is also distorted, as images "lengthen into air" (24) and drift into nothingness. The enjambment throughout the passage adds to the distortion, as each thought drifts into the next becoming indistinguishable from one another. Barbauld recognizes that a poet needs the inspiration of the "fairy bowers" and the temporary rest of self-indulgence, but the momentary rest becomes a lassitude that manipulates the "finer mold" of the poet's purpose. Barbauld desires poetry, and poets, to be actively engaged with society: "Active scenes / Shall soon with healthful spirit brace thy mind, / And fair exertion, for bright fame sustained" (38-40). The poet's influence in the world is enhanced by his engagement with that world. Action words such as "brace" (39) and "fair exertion" (40) are depicted as beneficial and wholesome. Because of the dynamic relationship between

the poet and the world, the purpose of his poetry becomes sustainable. In contrast to Barbauld's vision of the poet emerging from the grove with energetic and healthy inspiration, the imaginative poet is dulled towards the pursuit of knowledge and distracted from benevolent purpose.

Throughout "To Coleridge," Barbauld makes the reader increasingly aware of dangers of abstraction and subjectivity that inhibit the poet's social role. While succumbing to the lassitude of the imagination, the poet visualizes himself as more highly attuned to truth and considers himself to be above the common man, "pampered with most unsubstantial food, / Looks down indignant on the grosser world, / And matter's cumbrous shapings" (30-2). The movement from the physical "grosser world" of "matter" (31-2) into a metaphysical existence isolates the poet from the concerns of reality and creates a false sense of significance. Barbauld's vision of poetry as a medium for promoting social equality rebels at this atomization of mankind into stronger and weaker components. As she did for the scientist in "The Mouse's Petition," Barbauld assigns responsibility to the poet for the enlightenment of humanity. She does not deny that there are degrees of difference between a poet's sensitivity and that of the average person, but it is this elevated sensitivity that makes the poet capable of and responsible for promoting social advancement. The responsibility of the poet is to use imaginative visions to create and promote a better reality and to set the limits of the imagination. The poet cannot do this if he or she is ignorant of the physical world around them and "indignant" (31). Barbauld makes the effect of the poet very apparent at the end of the poem: "For friends, for country, chase each spleen-fed fog / That blots the wide

creation— / Now Heaven conduct thee with a Parent's love!" (41-43). Society looks to its poets for its behavioral archetype and, as Barbauld notes, it is not always discerning: "For friends, for country, will chase each spleen-fed fog" (41). If a poet produces poetry that is "spleen-fed" (41) and personally prejudiced or full of "unsubstantial" (30) imaginative abstractions, then society will embrace these misrepresentations as truth. A poet therefore shares the same responsibility as a parent, to cultivate and guide the society that reads his or her work. If the poet retreats to selfishness, ignorance, and abstraction, then this is the model that the world will emulate.

* * * * * * * * * *

"To raise new questions, new possibilities, to regard old problems from a new angle, requires creative imagination and marks real advance in science."

—Albert Einstein

In "The Mouse's Petition," "An Inventory of the Furniture in Dr. Priestley's Study," and "To Mr. S. T. Coleridge," Barbauld explores the potentially damaging effects of both scientific objectivity and self-indulgent imagination. Yet Barbauld does not end her poetic scrutiny with these feelings of foreboding; rather, she outlines the hazards in an attempt to make the alternatives more noticeable and appreciable. By highlighting alternatives, Barbauld allows for the benefits of science and imagination to overcome their own negative tendencies as well as those of the other. As I've shown, Barbauld appeals to the imagination in the literal employment of a poetic petition in "The Mouse's Petition," creating a scenario where the scientist uses his own imagination to understand more than he can visually observe in the laboratory. In "To Mr. S.T. Coleridge,"

Barbauld tempers imagination with reason—imagination becomes an important source of intellectual rest and rejuvenation:

> Build though thy place of resting; lightly tread
> The dangerous ground, on noble aims intent;
> And be this Circe of the studious cell
> Enjoyed, but still subservient. (35-38)

As long as the imagination is used in conjunction with reason—gratifying but not overwhelming—it plays an advantageous role in the promotion of original thought. Even though these two poems imply a needed synthesis between imagination and reason, they are still primarily critical. In poems such as "Washing-Day" and "The Invitation," Barbauld demonstrates her symbiotic vision more explicitly.

During the late eighteenth century, people were exploring and challenging their natural limitations with more imagination than ever before. An event of great public interest and jubilation at this time was the launching of the first hot-air balloons.[55] The possibility of taking to the sky like a bird fired imaginative and scientific minds alike. An article in the *Monthly Review* speaks to the great changes heralded by the successful flight:

> Not that what he says appears to us altogether repugnant to the laws of nature, but that we found our imaginations warmed by the gigantic idea of

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[55] This is an important part of Barbauld's poem, "Washing-Day." On 19 September 1783, Pilatre de Rozier, a French scientist, launched the first balloon, "Aerostat Reveillon." Two months later, the Montgolfier brothers, Joseph and Etienne, launched the first manned balloon in Paris on 21 November 1783. The first flew for 15 minutes, the Montgolfier balloon for 20 minutes. Barbauld first viewed a balloon exhibition at the Pantheon in January 1784.

> our penetrating some day into the wildest and most unhospitable regions of Africa, Arabia, and America, of our crossing chains of mountains hitherto impervious, and ascending their loftiest summits, of our reaching either of the two poles and in short, of our extending our dominion over the creation beyond anything of which we now have conception. (qtd. in Kraft 2)

The possibilities imagined by inventors fueled experimentation, and these experiments were in turn inspirational for poets. In her series of letters for "Young Ladies," Barbauld expresses an awareness of such mutual inspiration, stating, "The great laws of the universe, the nature and properties of those objects which surround us, it is unpardonable not to know, [but] it is more unpardonable to know, and not to feel the mind struck with lively gratitude" (qtd. in Bellanca 50). A closer look at her poems will elaborate on the variety of ways Barbauld envisioned the mutual workings of science and poetry to inspire innovation and progress.

In a few short lines, "Washing-Day" captures the inspirational effect of the imagination on scientific enterprise and progress. Starting with a moment of childlike wonder and realization, Barbauld looks into the future and previews the possibilities that can emerge from a simple imaginative moment:

> Sometimes thro' hollow bole
> Of pipe amused we blew, and sent aloft
> The floating bubbles, little dreaming then
> To see, Montgolfier, thy silken ball

Ride buoyant thro' the clouds—so near approach

The sports of children and the toils of men. (79-84)

As Elizabeth Kraft notes, Barbauld's poem "attests to the way the creative imagination can flourish in a mundane setting....'Washing-Day' clearly celebrates the power of the imagination to conceive of change, to look at a soap bubble and see a balloon" (7). By altering the descriptive narrative, used in the majority of this poem, to a more contemplative narrative for this passage, Barbauld isolates the moment of inspirational transition from the "sports of children" to the "toils of men" (84). The "sports of children" (84) become synonymous with youthful vitality and promise, while the "toils of men" (84) emphasize the drive to reach that potential. She further emphasizes this transition by switching from the plural "we" (80) to the singular "Montgolfier" (82). There is a sense of hypothetical intention implied in the "dream[s]" (81) of the whole becoming realized by the incentive and "toils" of one. Barbauld accentuates the individual moment of inspiration by naming the Montgolfier brothers and bracketing the name in punctuation, encouraging the reader to pause and consider the brothers' achievement. While the imaginative potential of dreams is available to all, it requires a special level of awareness to make them reality.

Throughout this passage Barbauld emphasizes development, both in theme (as demonstrated) and in structure. This entire passage is enjambed. Each thought runs into the next suggesting not only interconnectedness, but also a burgeoning comprehension of these connections. Barbauld, upon hearing of the Montgolfier balloon flight, looks back upon her childhood and realizes that within the amusement of blowing bubbles was a

spark of a dream and the desire to similarly float aloft. She envisions an inspirational and progressive pattern developing. As each thought is expressed and each action undertaken, another thought, action, and level of awareness develops. The blowing of a pipe creates bubbles "sent aloft" (80); the sight of the floating bubbles inspires visions of the silken hot-air balloon floating near the clouds; the thought of man, represented by Montgolfier (82), being able to "so near approach" (83) a cloud, something so distant and seemingly intangible, makes Barbauld aware of the limitless scope of possibility. Barbauld heightens the sense of enlightenment through her images of ascension. These few lines are filled with images of "bubbles" (81, 85), and a "silken ball" (82) and the language of flight—"aloft" (80), "floating" (81), and "ride buoyant thro' the clouds" (83). Embracing an imaginative perspective increases the potential of man, metaphorically extending his understanding beyond the physical and, in the case of balloonists, literally allowing for flight.

Where Barbauld briefly explores the connections of science and imagination in "Washing-Day," she fully expands the concept of symbiosis in "The Invitation." This heroic couplet poem captures the essence of scientific progress as it is enhanced, assisted, and maintained through imagination and poetry. The poem begins with a not unexpected exaltation to all the wonders and virtues of nature; the first fifty lines describe rolling hills, lush meadows, and the varieties of flora and fauna to be found in the countryside. But at line fifty-seven, Barbauld radically shifts her focus. She moves away from an invocation to nature and concentrates for the remainder of the poem on humanity's technological achievements, particularly the recently completed Duke of Bridgewater's

canal system.[56] Most critics of "The Invitation" take a decidedly negative approach to her inclusion of the canals, arguing that it is the scene of mankind's mastery and domination of nature (with all the negative connotations these terms imply).[57] I would argue that Barbauld, though aware of the ways technology is changing the landscape, also sees its potential for improvement. Julia Saunders agrees, describing the entry of the canals into the poem as "the modern genie of technology [bringing] about a wonderful convergence of the natural with the artificial" (506). Note how Barbauld introduces and describes the canals and their process of development:

> Here smooth canals, across th'extended plain,
> Stretch their long arms, to join the distant main:
> The sons of toil with many a weary stroke
> Scoop the hard bosom of the solid rock;
> Resistless thro' the stiff opposing clay
> With steady patience work their gradual way;
> Compel the genius of th'unwilling flood
> Thro' the brown horrors of the aged wood;
> 'Cross the lone waste the silver urn they pour,
> And chear the barren heath or sullen moor... (57-66)

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[56] She refers to the canal system commissioned by the Duke of Bridgewater to transport coal from his mines at Worsley to Castlefield, near Manchester, for processing. Considered a "triumph of engineering and a model of technological progress" (McCarthy & Kraft 227), it allowed the passage of boats over existing roadways and the river Irwell. Barbauld alludes to the sight of the sails of the ships in this suspended aqueduct.

[57] The negative approach is frequently seen in discussions of the Enlightenment's objectification of nature and women. See Penny Bradshaw's "Gendering the Enlightenment" (1998) for a thorough analysis from this perspective.

With phrases like "sons of toil," "hard bosom," and "stiff opposing clay," she acknowledges the damage being done and expresses distress that it must be this way. Yet in the last few lines of the passage, Barbauld has looked beyond the immediate to see the potential good. What is aged, dying, and barren in nature is being restored by man's innovations as water is guided through these dry areas. There is an awareness that this change and improvement will not be immediate; it will require "steady patience" (62). That being said, Barbauld still believes in the potential of mankind and that in a "gradual way" (62) society and the world will be eventually improved. This focus on the future and the sensation of motion and rejuvenation continues further into the poem:

> Now through the hidden veins of earth they flow,
> And visit sulphurous mines and caves below;
> The ductile streams obey the guiding hand,
> And social plenty circles round the land. (75-8)

Barbauld emphasizes the good that can come of man's manipulation of nature by not only describing "social plenty" but by modifying the natural imagery so that it softens the harshness of the earlier lines. Now change "flows" and is guided willingly into new shapes that encompass all. The softening of the diction and images also serves to demonstrate the beauty of progress that appeals to her imagination. Barbauld emphasizes the imaginative sense of wonder and awe as part of her justification for this development. The traveller immediately adopts an imaginative perspective in order to understand the technological innovation. His first impression is "with pleasing wonder" (67) and, upon viewing "the alter'd landscape with surprise" (69), he thinks he has stumbled upon

"magic scenes" (70). Barbauld's imaginative view of progress allows her not only to appreciate the progressive goal behind the canal's construction, but also the creative splendor of its ingenuity. As Catherine Moore notes, for Barbauld, "[t]he culmination of progress was the harmonious union between the material and the intellectual and moral good" (123). Barbauld's description of the Bridgewater canal system is a unification of science and imagination that physically improves nature and morally improves society.

The cooperation between science and imagination that Barbauld employs to describe the canal system is realized at the Warrington Academy. The main focus of her poem is Warrington and the generations of students it nurtures; it represents the pinnacle of Barbauld's vision of science and imagination acting as a progressive, symbiotic whole aimed at improving society. As Julia Saunders notes, "Barbauld equates science with intellectual liberty" (506). Science is depicted as an eagle, "the bird of Jove" (102), whose flight (and potential) is being "crush'd" (100), "restrain[ed]" (103), and poisoned by the "venom'd sting" (104) of the serpent of "bigot rage" (99) and "malice" (99). Yet science is able to overcome the "vain design" (106) of narrow-mindedness through the aid of the imagination, "the Muses divine" (105) who free aspiration and creativity, providing the impetus for liberation. The cooperation of science and imagination is very clearly a part of Warrington's education: "Where science smiles, the Muses join the train; / And gentlest arts and purest manners reign" (109-10). Warrington's concept of education, which emphasized the combination of science and art, provided students with a well-rounded perspective of their society and the moral guidance and understanding needed to improve it. This "nursery of men for future years!" (82) cultivates not only

knowledge (113), but also generosity (111) and virtue (114) in its students.[58] Warrington was not simply designed to maintain Dissent beliefs; it wanted to shape a generation of free thinkers who would renovate society with their leadership: "Here callow chiefs and embryo statesmen lie, / And unfledg'd poets short excursions try" (83-4). Warrington, and Barbauld by extension, did not perceive of their potential leaders as only politicians. As these lines demonstrate, leadership should come from poets as much as politicians learning to value the same goals.

The aspiration behind Warrington's curriculum was to create a generation of thinkers who would use science and technology as well as imagination and art to enhance, improve, and balance society. In the following passage, Barbauld both describes Warrington's objectives and her own vision of symbiotic science and imagination realized:

> Perception quick and luxury of thought;
> The high designs that heave the labouring soul,
> Panting for fame, impatient of controul;
> And fond enthusiastic thought, that feeds
> On pictur'd tales of vast heroic deeds;
> And quick affections, kindling into flame
> At virtue's, or their country's honour'd name;
> And spirits light, to every joy in tune;

[58] The idea of generosity as it used here in "generous youth" (111), is employed by Barbauld to depict not only the idea of giving but also the impression of creativity and a certain nobility of character. She uses a similar interpretation of generous again in this poem (line 127) and in "To Mr. S. T. Coleridge" (line 16).

And friendship ardent as a summer's noon;

And generous scorn of vice's venal tribe;

And proud disdain of interest's sordid bribe;

And conscious honour's quick instinctive sense;

And smiles unforc'd; and easy confidence;

And vivid fancy; and clear simple truth;

And all the mental bloom of vernal youth. (118-32)

Essential to the thinking of the Liberal Dissent movement was the belief that a person should be allowed the "luxury of thought" (118). This belief was equally essential for social improvement, for without freedom of thought and the chance to develop "perception quick" (118), man would have no method by which to reason and reach his own conclusions. Nor would he ever feel the "high designs that heave the labouring soul" (119) and inspire change. She recognizes and reiterates the negative potential of science as she sees mankind "[p]anting for fame" (120) and "impatient of controul" (120). There is also the fear of imagination's "enthusiastic thought, that feeds / On…vast heroic deeds" (121-2). These fears are countered by an articulation of the purpose that Barbauld urged the scientist to seek in "The Mouse's Petition" and "An Inventory of the Furniture in Dr. Priestley's Study" and the poet to remember in "To Mr. S. T. Coleridge." Suddenly, the dangers of fame, impatience, and untempered enthusiasm become incentive for change when these "quick affections, [are] kindl[ed] into flame" (123) for the pursuit of "virtue, or their country's honour'd name" (124). Barbauld believes that

with the development of a morally and socially grounded awareness, the negative ramifications of reason and imagination can be diverted and put to beneficial use.

With the articulation of purpose and an awareness of the potential benefit of science and imagination, Barbauld lists the ideas that man should follow for true improvement of society. The repetition of the conjunction "and" and the building of short clauses expressing a single idea demonstrate a constantly developing and improving intention. Evocative of "Hill of Science," she starts simply and gradually increases the difficulty as Warrington's students, and humankind in general, seek enlightenment and truth. Man needs to be at peace with himself—with "spirit's light, and every joy in tune" (125)—and with others, enjoying "friendship ardent as a summer's noon" (126). Barbauld insists that vice should be scorned (127) and "interest's sordid bribe" (128) disdained. But this scorn and disdain should still be qualified — it should be a "generous scorn" (127) and a "proud disdain" (128), intimating an understanding and acceptance of those who believe differently. With this acceptance of others and themselves, mankind will be able to enjoy an "easy confidence" (130) and "conscious honour's quick instinctive sense" (129). By embracing this ideal envisioned by Barbauld and offered by Warrington's curriculum, humankind can achieve an instinctive and highly developed awareness guided by conscience rather than the status quo.

In the final couplet of this passage, Barbauld returns to the relationship between imagination and science, seeing them epitomized in the pursuits of fancy and truth. Barbauld's use of adjectives is strategic. The imagination is described as "*vivid* fancy" (131; my emphasis) while the truth of science is "*clear* [and] *simple*" (131; my

emphasis). Vivid denotes impressions of intensity, vigor, and graphicness, while clear and simple designate ideas of effortlessness, ingenuity, and lucidity. They both describe the same kind of perception, but with varying degrees of fervor. By contrasting imaginative and scientific observation yet unifying them as acts of discernment, Barbauld firmly places them in a relationship designed to enhance man's awareness of the world around him. This type of perception, she implies, is essential for society's improvement. The union becomes the absolute zenith of man's awareness. The "vernal youth" (132) who employs this unified perception will undergo the "mental bloom" (132) of growth and development. Barbauld's use of such fertile words as vernal and bloom suggests a constant cycle of productivity associated with the symbiosis of science and imagination. This image of youth modifies the one developed in "To Mr. S. T. Coleridge." Youth in "The Invitation" is seen as potentially positive and energetic, while in "To Coleridge" it is stagnant and lethargic. The essential difference results from the development of the youth in the two poems. Barbauld emphasizes the importance of the kind of education provided at Warrington Academy for the fostering of moral judgment, imaginative inspiration, and reasoned prudence. The development of the youth in "To Coleridge" is without direction or focus in the bowers of fancy.

Barbauld is seeking to instill a permanent change in attitude and behaviour, reducing prejudice and sustaining moral standards. The fusion of science and poetry is vital to this maintenance. The imagination and poetry assist in keeping the discoveries and innovations of science, as well as civilization's interpretation of progress, relevant for future generations. It was believed that knowledge was gained through experience and

perception. Perception "involves contemplation, the retention of past experiences and the ability to recall them" (Harris 81). Barbauld recognized that while some of the importance of innovation would be appreciated during the immediate moment, greater awareness and comprehension would come with time and reflection. The need to preserve the scene for this reflection is met by the imaginative creativity of the fancy:[59]

> How bright the scene to fancy's eye appears,
> Thro' the long perspective of distant years,
> When this, this little group their country calls
> From academic shades and learned halls,
> To fix her laws, her spirit to sustain,
> And light up glory thro' her wide domain! (133-8)

Naturally, "the scene" (133) will not be preserved exactly, but with imagination and "fancy's eye" (133), Barbauld imbues the act of reflection with a new vitality. When history is examined through the imagination it is "bright" (133), not dulled by "the long perspective of distant years" (134). History remains significant for future generations — "this little group" (135) — who can use it to "fix her laws" (137) and contribute to society in a way that "light[s] up glory" (138) for their country. She describes the future generations as having "various tastes in different arts display'd, / Like temper'd harmony of light and shade, / With friendly union in one mass shall blend" (140-2). These are the very ideas of tolerance, acceptance, and understanding of differences that define the actions of the Liberal Dissent movement and are the touchstones by which Barbauld

[59] Fancy carries the positive connotation of invention and originality, rather than the negative ideas of superficiality and groundlessness.

envisioned society should operate. Having developed the concept of the morally aware youth and the social goals of the scientist, Barbauld ends "The Invitation" with an invocation to the power of poetry:

> With lips of fire shall plead his country's cause,
>
> And vindicate the majesty of laws.
>
> *****
>
> That, to the sounding lyre his deeds rehearse,
>
> Enshrine his name in some immortal verse,
>
> To long posterity his praise consign,
>
> And pay a life of hardships by a line. (169-76)

Barbauld describes the continued relevance science has through poetry. The poet's "lips of fire" (169) and "sounding lyre" (173) capture the accomplishments of the scientist and enhance "his deeds" (173) in "some immortal verse" (174). Advocates for science viewed it as the great equalizer, able to explain the physical world in understandable terms and identify natural order. Poetry assisted in this aim by focusing on and isolating science's most salient points, allowing the socially conscious scientist to "plead his country's cause" (169) and "vindicate the majesty of laws" (170). Using language that suggests continuity—"rehearse" (173), "enshrine" (174), "immortal" (174), "posterity" (175), and "consign" (175)—Barbauld demonstrates how poetry can supersede temporal and cultural boundaries. The message of history and the achievements of science are extended through poetry and given boundless potential for influencing the future. Having begun her poem by glorifying nature for its inspiration and celebrating science for its

equal ingenuity, she concludes by praising the imagination and poetry for promoting a relationship between the natural and the artificial.

* * * * * * * * * *

It is unknown whether Barbauld would have read Locke's *Essay Concerning Human Understanding*, but considering her background, I think it would be safe to assume that she was at least familiar with it. There is correspondence between Locke's concern for human conduct with humanity's burgeoning knowledge and Barbauld's desire to see the technological development in society equaled, if not surpassed, by its moral development. Barbauld's interest in the honorable progress of her world was not a new phenomenon either. Concern for ethical behaviour, particularly expressed by women, can be traced back to classical literature. Barbauld's identification and assimilation of the roles of science and imagination serve to both instruct society and celebrate these two ideas of advancement. Her prevalent ambivalence, which more acerbic reviewers would ascribe to her lack of authority or fortitude, can actually be read as legitimate rhetoric of persuasion. Considered fundamental to the Liberal Dissent movement, free will, thought, and choice are essential to the improvement of society. Denying people the right to evaluate and decide for themselves is the cruelest kind of tyranny. Anna Letitia Barbauld is to be admired for the way in which she was simultaneously able to express and demonstrate this sentiment in her poetry. Not only does she provide the propaganda, but she also acts as the model. At no point does she actively campaign for or against either intellectual approach, as so many of her contemporaries did. While she might have been criticized for the didactic nature of her

writing, her method of instruction serves to make her readers *practice* what she preaches, not just to take it in. Readers of Barbauld's poetry must evaluate and judge, not only her intentions in writing, but also their own. Unlike other activist works, which argue a single perspective for the reader's agreement or disagreement, Barbauld's are multifaceted and present different sides to the argument. This is the ultimate message of Barbauld's synthesis of science and imagination: the appreciation of variety and the tolerance to both seek and accept that variety.

Conclusion

This thesis demonstrates that Anna Letitia Barbauld was ambivalent about the impact on both the individual and society of science, reason, poetry, and imagination, and it explores the ways in which she actively debates their relative merits and shortcomings. However, I have argued that articulating the disparities among these concepts was not her ultimate goal; rather, she wanted to show how they are integrally connected and indeed potentially symbiotic. In his seminal discussion of Romanticism, M. H. Abrams offers a perspective that accords with Barbauld's:

> Almost all the important Romantics theorists commented on the disparity between imaginative and scientific perception...It is important to recognize, however, that by far the greater number refused to admit that there is any inherent and inescapable conflict between science and poetry, or that scientific progress necessarily entails poetic decline...when properly employed, as parallel and complementary ways of seeing. (308)

The C. P. Snow division of science and imagination does not exist for Barbauld. Scientific and imaginative modes of thinking are interconnected and enhanced by each other. For Barbauld, the rationalism of the Enlightenment and the Romantic imagination combine to create the complementary way of seeing that Abrams describes and to illustrate an imaginative moral intuition.

Barbauld's imaginative distillation of late eighteenth- and early nineteenth-century progress was an aspect familiar to other canonical Romantics. In their prefaces, defenses, and other "theoretical" prose on the nature and function of art, writers such as

William Wordsworth, Samuel Taylor Coleridge, and Percy Bysshe Shelley expressed similar sentiments about the poet's responsibility to civilization's progress. Wordsworth, in the 1802 edition of the "Preface to *Lyrical Ballads*," describes his principle objective in the writing of his poems to "chuse incidents and situations from common life, and to relate or describe them, throughout, as far as was possible, in a selections of language really used by men" (244). He also saw it as the poet's task to take these situations and "throw over them a certain colouring of imagination, whereby ordinary things should be presented to the mind in an unusual way; and, further, and above all, to make these incidents and situations interesting" (244). His poetry was to encourage feelings that gave importance to an action and situation. Wordsworth's objectives correspond with Barbauld's hope for enhancing the impact of scientific achievement in history through imagination and for imagination's ability to temper the headlong rush for self-fulfilling progress. Imagination is the method through which experience is synthesized into an understanding.

Of all the Romantic theorists, Shelley is the one who connects most precisely and succinctly with Barbauld's thoughts on a poet's social responsibility. In his *Defence of Poetry*, Shelley proclaims, "Poets are the unacknowledged legislators of the world" (297), articulating Barbauld's allusions to the poet's role in shaping society. He expresses a similar desire for reason and imagination to work together:

> Reason is the enumeration of quantities already known; imagination is the perception of the value of those qualities, both separately and as a whole. Reason respects the differences, and imagination the similitude of things.

> Reason is to imagination as the instrument to the agent; as the body to the spirit; as the shadow to the substance. (277)

For Shelley, and the rest of the Romantics, the imagination is the "great instrument of moral good" (283). Poetry holds a special position as the filter for society's development; progress, policy, and morality are mediated through its imaginative perspective and it provides the mainframe for conscientious judgment.

As Elizabeth Kraft notes in her study of "Washing-Day,"

> The celebration in [it] of the creative imagination places the poem firmly in the centre of the late eighteenth century's preoccupation with both creativity and change....[that] the seeds of Romanticism's focus on the creative imagination were planted by the eighteenth century's interest in the association of ideas is an important one for situating Anna Barbauld's work in the canon of English literature....she shares with younger contemporaries that the imagination operates through the association of image and thought to grasp prophetic insight that transform existence or perception permanently. (9)

Barbauld's attention is always directed up the hill – even in her nostalgic moments, as in "Washing-Day," she sees the possibilities for the future. She embraces the achievements and innovation of scientific experiment and uses imagination to expand these horizons further. Barbauld and her writings act as an ideological bridge spanning Enlightenment and Romantic thought, infusing vitality and relevance of past discoveries for present consumption and future inspiration.

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