

GOTHIC TAXONOMIES:
HEREDITY AND SITES OF DOMESTICATION
IN NINETEENTH-CENTURY BRITISH FICTION

By

Elizabeth M. Pellerito

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ABSTRACT

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This project reads the ways in which systems of taxonomy and gothic novels, when read together, chart the history of nineteenth-century theories of heredity. By pitting Enlightenment empiricist and rationalist thought against gothic novels, literary critics have posited the two fields as diametrically opposed entities. However, I argue here that the gothic novel translates naturalists' and taxonomists' questions about species, applying them to the social, political and biological structure of the human family. The central term of the project, "gothic taxonomy," refers to the moments in each of these disciplines, and in the exchanges between them, that describe failed systematizations, the simultaneous necessity and impossibility of nineteenth-century attempts to encapsulate the laws of hereditary transmission in a single set of natural laws.

By reading taxonomy as a process with social and political consequences, this project provides much-needed nuance to the often reductive critical debates about hereditarians and their foes during the nineteenth century. Revising and complicating these notions forces us to rethink the gothic as a discourse that is merely oppositional in nature, existing only to challenge the narratives of Enlightenment. Reading the gothic as an interpretive model that actively unpacks the inconsistencies of systematization, rather than simply as a reactionary celebration of the irrational or the subconscious, allows us to read it as a discourse with a real contribution of its own to make to scientific debates about the biological and social role of heredity during the period.

These readings posit the domesticized gothic as an interpretive mode that challenges the logic of inclusion and of social boundedness promulgated in the nineteenth century realist novel. In each chapter, I examine the conversations about heredity that occur at four different iterations of the domestic: the home, the farm and the garden, and the nation. The first chapter uses Emily Brontë's *Wuthering Heights* and Jean Baptiste de Lamarck's *Zoological Philosophy* in order to argue that the novel uses the space of the home and its boundaries in order to first provoke a series of misleading and inaccurate versions of the family tree, and then to force the reader to redefine notions of enclosure, belonging, and the family itself. Chapter two positions Anne Brontë's *The Tenant of Wildfell Hall* against the Romantic-scientific poetry of Erasmus Darwin; I argue that Brontë reclaims and reformulates debates about "breeding" and education in order to construct a model of heredity which favors maternal influence, in spite of the economic and legal legacies of the patriarchal conventions of the time. The third chapter places Charles Darwin's *The Variations of Plants and Animals Under Domestication* in conversation with the novels of Wilkie Collins, arguing that post-*Origin* thinking about heredity relied on an invisible materialism rooted in much older notions of invisible fluid matter, notions which allowed contemporaries to paradoxically straddle the boundary between determinism and autonomy. In the final chapter, I argue that Mona Caird's *The Daughters of Danaus* (1894) returns to Anne Brontë's earlier logic of "breeding" in order to sketch out the complicated relationship between women's bodies and nationalism; Caird revises Walter Bagehot's gendered notions of a hereditary basis for the nation and embraces a mythic matriarchal past which allows her to subvert biologically-based arguments about the New Woman without denying the importance of heredity for the individual and the nation.

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Introduction

Family portraits and posthumous children: The social importance of heredity in nineteenth-century Britain

When Swedish naturalist Carl Linnaeus published his proposed system of binomial nomenclature in *Systema Naturae* (1735), he ushered in a new model for categorizing plants and animals, one that became almost instantly dominant in the scientific community. Based on a “natural” order of the visible world, Linnaeus’ system allowed species to exist within multiple categories of varying specificity simultaneously. It seemed that a system had finally come along that was complex enough to incorporate newly discovered species, but simple enough to be relatively easily and consistently applied by the international community of naturalists who read it in its original Latin. During the final years of the Enlightenment, however, a group of French naturalists came to dominate the European conversation about how to classify species. Although they utilized the Linnaean system, the Comte de Buffon and Jean-Baptiste Lamarck challenged the validity of any system which declared the borders between individual species and varieties to be immutable. The last decades of the eighteenth century also saw Linnaeus’ works translated into English for the first time. The most notable of these appeared courtesy of the Lichfield Society, led by Dr. Erasmus Darwin, poet, scientist, and grandfather of Charles. The Enlightenment interest in taxonomy, says Harriet Ritvo, allowed naturalists to accommodate ever-increasing numbers of newly-discovered species into a rational, closed system (18).¹ But the conversation about how to categorize plants and animals, at what point one variety ends and another begins, is, I will argue in the project, about more than classification, more than reaffirming the orderliness of the natural world. Instead, I track this conversation through the eighteenth and nineteenth centuries because it contributed directly to the study of heredity, a

field which emerged and solidified during the same period. Just as the taxonomists attempted to create a system that could accommodate every plant and animal, the new hereditarians were applying these same concepts to relationships among human families. The nineteenth century witnessed tremendous changes to popular and scientific understandings of heredity, perhaps more than any other period in history. While Evelyn Fox Keller has christened the twentieth century “the century of the gene” because of the exponential changes it witnessed in gene technology, genome mapping, and a basic understanding of chromosomal structure and activity, I suggest in this project that the *conceptual* changes in understanding heredity as a biological and social process, changes that stemmed from these Enlightenment taxonomies, were even more important than those later technologies, having made them possible in the first place.

The waning years of the Enlightenment ushered in another innovation, one that I will argue is directly linked to the notion of heredity as a system of categorization: the gothic novel. With the publication of Horace Walpole’s *The Castle of Otranto* (1764), *The Mysteries of Udolpho* (1794) and *The Italian* (1797) by Ann Radcliffe, and *The Monk* by Matthew Lewis (1796), the gothic novel soared in popularity. Critics have long maintained a direct relationship between the dominance of Enlightenment rationality and the form of the gothic novel: as Eve Sedgwick wrote in the first chapter of her now-classic *The Coherence of Gothic Conventions* (1980), “It is the position of the [gothic] self to be massively blocked off from something to which it ought normally to have access” (12). In other words, the rational thinking self is set at odds with the subconscious, that which observes but cannot express in traditional ways. The gothic is traditionally read as a reaction against the contained and exclusionary nature of the category of the rational during the eighteenth century; by reveling in dark supernatural plots and the twisted psychologies subsumed within human nature, the genre points to the shortcomings of

a system of knowledge which claimed that anything was knowable given enough time and a properly qualified observer.² By pitting Enlightenment empiricist and rationalist thought against gothic novels, literary critics have posited the two fields as entities that complement each other by opposing one another. Scientific discourse may have much in common with the realist novel, we have learned from Victorian literary criticism in particular, but the gothic novel is all too often invested in the restoration of order at all costs, even while it plumbs the depths of the impossible, of that which is buried and that which refuses to stay buried, the repressed and the suppressed.

During the nineteenth century, however, both taxonomy and the gothic novel converge on a single point: each of them insistently returns to a set of questions about the fundamental nature of heredity, questions which are inherent in their eighteenth-century inception. The taxonomists, in trying to illustrate the structural relationships among species and varieties within each kingdom, implied a larger set of genetic relationships that would be more clearly expressed in the midcentury publication of Charles Darwin's *On the Origin of Species*. For their part, the gothic novelists found themselves obsessed with questions of origin and of hidden biological relationships that were often revealed in the novel's dramatic denouement. The gothic novel thus translated the taxonomists' questions about species, their macro view of heredity, to a micro view situated within the social political and biological structure of the human family. This unexpected common ground indicates a deeper and more important connection between these two modes of knowing, one that forces us to rethink the commonly-accepted critical opposition between the empirical and the gothic. This connection is rooted in the twin drives of both Enlightenment taxonomy and gothic fiction to search for and attempt to illustrate a system of heredity, macro or micro, that is both necessary and impossible: necessary because it declares a

world which is orderly and operates according to natural laws, impossible because that world is always irreducible to mere discourse. My project introduces a single oxymoronic term, “gothic taxonomy,” that challenges what we think we know about the taxonomical, the gothic, and above all, the genetic. I will return to each of these categories below, but I begin here with a definition: a gothic taxonomy is an attempt at systemization which by definition must fail; or rather, an order which recognizes its own artificiality. It is self-referential; it occurs in both scientific and literary texts, and in the spaces between them, the exchanges that occur when we examine the ways in which they respond to one another. A gothic taxonomy begins by describing a system which attempts to encapsulate everything within its own boundaries, but it inevitably comes up against the utter impossibility of that task. It becomes visible at the moments in which a system begins to collapse under its own weight, and those in which the discourse surrounding the taxonomic system forces it to come face to face with its own limits. In short, it describes at large a set of contradictory nineteenth-century attitudes toward heredity: if there is indeed a system which governs the laws of reproduction and biological inheritance, it must be one which can incorporate and encode a wide variety of scientifically observable behaviors and traits. But to express this system in its entirety is to succumb to the logic of the gothic, which shuts down autonomy and threatens to eliminate the mainstay of the Victorian *Bildungsroman*, the development of the individual. I will return to this generic interplay below, but first I illustrate what this process looks like by pointing to three discrete moments in nineteenth-century discourse, each of which depicts the clash that occurs when a model of categorization reaches its logical extreme.

The first two of these moments are from scientific texts, and I will return to them in the conclusion of the first chapter to consider more fully how they affect our reading of a particular

novel (in this case Emily Brontë's classic Gothic text, *Wuthering Heights*). The first of these, which enters the public realm at the dawn of the long nineteenth century, is Thomas Malthus' discussion of the possibility of perfecting an organism through breeding in his *An Essay on the Principle of Population* (1798). Responding to Condorcet, who proposed that improvements in technology and living conditions would progress steadily toward an "organic perfectibility," Malthus states that "The progress of a wild plant to a beautiful garden flower is perhaps more marked and striking than any thing that takes place among animals; yet even here, it would be the height of absurdity to assert that the progress was unlimited or indefinite" (70). But, he says, logic tells us that "there is a limit to improvement, though we do not know exactly where it is" (71). Malthus critiques the eighteenth-century notion of "improvement" by imposing limits upon it, although those limits are impossible to define. The exuberance of an earlier model for man's interaction with nature – and vice versa – the unbounded optimism of these earlier schemes for imposing order upon nature, must suffer checks in the same way that a constantly growing population is controlled by natural forces. Malthus' critique is significant as an early example of the discomfort nineteenth-century naturalists and political economists had begun to experience in regards to the *limits* of order, the inexpressible but necessary boundaries of organizing models that could not possibly incorporate every detail of an infinite system. Of course, Malthus' anxiety is also very much about heredity, about human (lack of) control over breeding processes, both agriculturally and within the human family. As the first example of what I will call "gothic taxonomies," attempts at ordering a system that by definition exceeds its own boundaries, Malthus makes possible a powerful critique of realism via the concept of heredity.

The second moment, which has its roots in Linnaean and Lamarckian taxonomies, is found midway through the century, in the first chapters of Darwin's *On the Origin of Species*

(1859). In order to introduce the concept of natural selection, Darwin cites, as Lamarck did before him, the scientific debate over what constitutes a species and how naturalists were to distinguish one species from the next or from a variety. “[...] I look at the term species,” notes Darwin, “as one arbitrarily given for the sake of convenience to a set of individuals closely resembling each other [...] it does not essentially differ from the term variety, which is given to less distinct and more fluctuating forms” (52). Whereas human-controlled breeding is predominantly based on visible and measurable characteristics – man “often begins his selection by some half-monstrous form; or at least by some modification prominent enough to catch his eye” (77) – the force of natural selection “can act only by the preservation and accumulation of infinitesimally small inherited modifications, each profitable to the preserved being; and as modern geology has almost banished such views as the excavation of a great valley by a single diluvial wave, so will natural selection, if it be a true principle, banish the belief of [...] any great and sudden modification in [a species’] structure” (86). I will return to geological time scales and their effects on Victorian thought in the final chapter of this project, but for now Darwin’s reference to geology serves to reinforce his claim that “I can see no limit to the amount of change, to the beauty and infinite complexity of the coadaptations between all organic beings” over time (96). Coupled with his much-ridiculed declaration that, given enough time, a bear could become a creature “as monstrous as a whale,” this debate reveals another glimpse of the gothic nature of taxonomy. If there are no strict divisions between species and varieties, what use is categorization in the first place? And without categorization, how can we communicate meaningfully with one another? If we live in a universe in which a bear can become a whale, or an ape can become a human, then the project of Victorian realism – copying faithfully from the natural order – must be deeply flawed.

The final moment I wish to highlight in this introduction to gothic taxonomies occurs not in the scientific realm but in fiction, in George Eliot's *Daniel Deronda* (1876). This project juxtaposes fiction with scientific works in order to demonstrate fiction's capacity to bring out and probe the moments of taxonomic chaos that scientific texts often gloss over or explain away. By reveling in these moments, folding them into the fabric of everyday life, the novels I examine here have the power to embrace that moment of doubt and explore its possibilities and its consequences for the individual, the family, and the nation in Victorian Britain. *Deronda* in particular is a useful place to begin for several reasons: because it incorporates elements of the gothic into a largely realist framework (of which more below), and because at its heart is a series of questions about the sociopolitical importance of categorization and biological inheritance. Upon entering the grand English estate of his uncle, Sir Hugo Mallinger, Daniel Deronda comes face to face with that fixture of the country home, the hall of family portraits. As Robert Mighall notes in *A Geography of Victorian Fiction: Mapping History's Nightmares* (1999), the ancestral portrait or hall of portraits stands in for the Gothic trope of the family curse, a direct hereditary linkage between individuals in different spaces and times; the portraits "function rather like genealogical 'growth rings' for the mansion itself, testimony to the antiquity of the house (building) and of the House (family)" (85). The domestic space, the property which has been passed down the line, is inseparable from and stands in materially for the traits and characteristics inherited by the younger generations. Indeed, the portraits Daniel faces document the family history back over eight centuries to the reign of William I, a daunting prospect for a young man who knows nothing of his own lineage: "Two rows of these descendants, direct and collateral, females of the male line, and males of the female, looked down in the gallery over the cloisters on the nephew Daniel as he walked there" (Eliot 165). Yet the gauntlet Daniel faces is

far from timeless, we learn, and the portraits change in style according to artistic fashion, from the “rosebud mouths and full eyelids” of a Lely to the “refined editions of the family types” of Reynolds (165-6). In this space, history is stylized but oppressive – so oppressive that it can bend facts to suit its monolithic vision: Sir Hugo’s portrait painter “had done justice to the agreeable alacrity of expression and sanguine temperament still to be seen in the original, but had done something more than justice in slightly lengthening the nose, which was in reality shorter than might have been expected in a Mallinger” (165). Eliot’s portrait hall is, I suggest, a fictionalized, Gothic version of the conflicts encountered by Darwin and Malthus. As he crosses the threshold of a typically English home, Daniel is forced to confront a lineage that is both spatialized and visualized. The Mallinger family tree is writ large upon the very walls of their private home, so that anyone who enters is forced to acknowledge the family’s antiquity. But as Sophie Gilmartin notes, pedigrees may be lost to history for any number of reasons:

because the pedigrees belong to those who are collateral to the main line of inheritance, whose relation to this line is considered too peripheral to record; because they are the pedigrees of marginalized Celtic nations whose ancestry has been dismissed; because they are illiterate, or working class, or because they are women (a woman’s name is literally lost upon the family tree when she marries and takes her husband’s name); because they are from a distinct, matrilineal Jewish pedigree; because a recognition of their place on the family tree is a threat to royal succession (13).³

The scene presents Daniel’s (and Eliot’s) implicit critique of the logic of pedigree: not only are there branches and entire trees excluded from this system of taxonomy, but the current generation’s knowledge that Hugo’s portrait has been “corrected” will almost certainly be lost to

future generations. By calling into question this representational technique, which after all may have occurred in every portrait along the way, even to the extent that the “family nose” may be more fiction than fact, then the pedigree system and the importance of heredity itself becomes radically destabilized. The notion of “family resemblance” may exist only in the minds of painters and novelists – but for someone like Daniel, a resemblance or lack thereof comes to have very real social, economic, and political consequences.

Though I have chosen this scene from *Daniel Deronda* because of its clearly gothic resonances, of which more below, it is worth noting that the nineteenth-century novel abounds in serious and facetious references to the logic of family resemblance and its (un)faithfulness as an indicator of genetic heritage. Jane Austen’s *Sense and Sensibility* (1811) notes that “On every formal visit a child ought to be of the party, by way of provision for discourse. In the present case it took up ten minutes to determine whether the boy were most like his father or mother, and in what particular he resembled either, for of course every body differed, and every body was astonished at the opinion of the others” (68). In genteel society, Austen suggests, resemblance is a social topic that is indeterminate, unable to be proven one way or another, and therefore void of any real meaning and safe from controversy. In a letter to her friend Amelia, on the other hand, Thackeray’s Becky Sharp is typically irreverent about the generations of Crawleys featured in portraits at Sir Pitt’s family house, which is “as big and glum as the great hall in the dear Castle of Udolpho;” the portraits, she writes mischievously, feature “oh my dear, scarcely any stays at all” (78). For Becky, the threatening authority of lineage is merely a trick of the Gothic novel, not to be taken seriously. Novels that are determinedly serious about the notion of resemblance, like *Oliver Twist*’s adoration of his mother’s portrait, were thrilling to read but often dismissed as mawkish and forced. Ultimately, even in Dickens’s corpus, the seriousness of *Oliver Twist*

would give way to the “posthumous child” David Copperfield and of course Phillip Pirrip, whose family hall of portraits would be reduced to a set of blank stones in a churchyard, devoid of any human features except those of the stones and engravings written upon them. For the mid-century protagonist of the realist novel, a lengthy family history was useful only insofar as it gave him the resources to set out upon his Bildungsroman. The self was to be built up, piece by piece, in an act of discovery, rather than reassembled from fragments of the past like the gothic Mallinger manor in *Daniel Deronda*. John Stuart Mill’s notion of individualism, the core of the Victorian realist novel, simply did not square with a reliance on family histories. As it became (theoretically) possible to rise above one’s middle-class origins, biological heritage was no longer necessary as a precursor for success – even if one did run the risk of become rather too much like Dickens’s Veneerings, whose entire world was derisively “bran-new,” devoid of history and therefore devoid of meaning.

Because he is without definitive origins, the hall of portraits becomes all the more important for Daniel. Gwendolyn Harleth, on the other hand, has both the luxury of extensive roots and the ability to cast off those roots, travel the continent, and make her own way in life. But she, too, is haunted by representations of the past. Upon entering the new family home at Diplow, Gwendolyn scolds her sister Isobel for “open[ing] things which were meant to be shut up” when she inadvertently uncovers a painted panel behind the wainscoting. The panel, which features “an upturned dead face, from which an obscure figure seemed to be fleeing with outstretched arms” (27), pops open during a tempestuous piano performance by Herr Klesmer, forcing Gwendolyn into a reaction straight from the Gothic mode: she turns pale “with a change of expression that was terrifying in its terror” (61). Why should Gwendolyn, like her Gothic predecessors, be so entirely transfixed by a mere painting, gruesome though it may be? In this

project, I posit both Daniel's experience in the hall of portraits and Gwendolyn's reaction to what seems quite literally to be a skeleton in the closet as symptomatic of nineteenth-century attitudes towards heredity, attitudes which are situated in both the domestic and the Gothic and which draw attention to the connections between heredity, representation, and language.

Each of these moments – Malthus' doubts about the perfectibility of a species and the extreme limits of selection; Darwin's inability to determine the boundaries of a species or variety, his critique of Linnaean taxonomy as an artificial construct rather than a "natural" reflection of the world; and Eliot's characters' obsessions with under- and overabundant pasts, her concerns about how we portray heredity and what we leave unspoken and unrecorded – points towards what I have called gothic taxonomies. Each one attempts to express what Umberto Eco has called the "infinite form" of the poetic list, "the fear of being unable to say everything" (15, 67). These are the moments in which the structures of heredity, cast in terms of categorization and taxonomy, threaten to collapse. They make claims toward a totalizing completeness, even depend on that completeness for the system to be meaningful, but they also acknowledge the utter impossibility of that task. This project investigates the movement between heredity at the level of species and heredity at the level of the family. Interrogating the discursive space of these gothic taxonomies, which I will argue takes place in large part at nineteenth-century sites of the domestic and of domestication, will expose a new way of reading the nineteenth-century novel, one which posits representations of heredity as Gothicized moments in which the taxonomic strategies of empiricism break down.

Before I expand on how I approach these claims in each chapter, it is useful to contextualize both the taxonomic and the gothic more fully. Perhaps the most foundational text for this project is Michel Foucault's *The Order of Things* (1966). Foucault specifies that biology,

language and economy are all closely related in the history of ideas; a single conception of “order” lies at the heart of each of these realms. Order is the place where language and space meet, the blank spaces in the two-dimensional table that serves, for Foucault, as a metaphor for eighteenth-century natural history. This emerging science, he argues, was mainly concerned with “the nomination of the visible,” the process of applying names and relationships to objects – in other words, of placing them into *families* – based on external similarities or resemblances (132). Foucault describes this process in linguistic terms: not only must the natural historian discover the proper noun or name specific to each organism, he must also categorize by applying common nouns to larger groups. This assumes a universal common language as well as a continuous order in nature, one based on the logic of direct and simple reproduction (146). The great rupture of modernity takes place during the early years of the nineteenth century, the argument continues; at this point discontinuity replaces the logic of visible resemblance and “organic structure” becomes the organizing principle of living beings. All things are first defined as living or non-living, and one of the key characteristics of a living thing is its ability to reproduce. Nonetheless, the eighteenth-century table of names remains in place, though classification now means “to relate the visible to the invisible, to its deeper cause, as it were, then to rise upwards once more from that hidden architecture towards the more obvious signs displayed on the surfaces of bodies” (229). The external characteristics of an organism are no longer the sole determining factors in categorization, in other words, though they still remain helpful indicators of internal, invisible differences in structure and function.

This fraught relationship between the external and the internal has been thoroughly explored in the literature of the history of science. Most notably, a large body of work exists to document the transition from the eighteenth-century fascination with physiognomy, concerned

more directly with surface characteristics of the individual, to what has been described as a “natural” progression to the nineteenth-century science of phrenology,⁴ which correlated external characteristics somewhat arbitrarily with internal, intangible aspects of moral or ethical development or lack thereof.⁵ In this chapter and the chapters that follow, however, I map a different kind of external/internal relationship, one that Foucault recognizes in *The Order of Things*.⁶ In one sense, physiognomy and phrenology are precursors to a theory of heritability (though the timeline is hardly so simple); an intangible system determines characteristics both visible and invisible but always located on the human body. In another sense, however, the genetic is not just about the relationship between the inside and outside of an organism, but also very much about the organism’s relationship with its environment and with other organisms. It is here that the concept of the domestic becomes key for this project, since it describes both the intimate spaces of reproduction and birth and the home, a shelter against the foreign and the invasive. The domestic, too, shifts in meaning across the century – from the home, to the process of “domestication” in the natural realm, to the “domestic” as a project of national identification. Like the pedigree, the domestic is an act of enclosure, of defining insiders and outsiders, those who are related and those who are not. For a number of nineteenth-century thinkers interested in the relationship between genes and the individual, and/or genes and the family – and thus the individual and the family – the idea of the genetic was frightening enough – threatening to both the individual and to the family – to be displaced onto an external, “foreign” space. Each of the novels I examine in this project, Emily Brontë’s *Wuthering Heights* (1847), Anne Brontë’s *Tenant of Wildfell Hall* (1848), Wilkie Collins’s *Armadale* (1866), and Mona Caird’s *Daughters of Danaus* (1894), is obsessed with domestic spaces, but what connects them all is an obsession with, and usually a fear of, the emergent genetic. Each of them, in other words, enacts

Gwendolyn Harleth's fear of the unknown connections that lie enclosed in and encroach upon the home, and each of them tries in varying ways to contain that threat.

In *The Order of Things*, Foucault relegates the collection to the cabinet of curiosities and to the expansive logic of eighteenth-century systems of taxonomy, systems that attempted to incorporate the totality of the universe into the microcosm of the naturalist's catalogue of species and samples. Whereas Foucault's version of history can sometimes read like a neatly plotted cabinet of curiosities itself – with each period allotted a particular space and set of characteristics – other writers on systems and archives succumb to and embrace the disorder Foucault scrupulously avoids. Thus nineteenth-century thinking about biological inheritance was trapped between the desire to collect, label and define the world and a fascination with unexpected connections, unknown interpolations within lineages, and uncharted depths of human, family and national narratives. After all, as Emily Brontë notes in a passage I will explore further on in this chapter, an unknown lineage can be a blessing and a curse: Heathcliff could be the descendant of kings or of the commonest street sweepers. The very fabric of our social and political lives depends on knowing how to categorize others according to what has come before, and knowing what to do with the endless anomalies, the challenges to the systems that define us. In searching for an orderly system of heredity, a tidy hallway of portraits, these novels attempt and subsequently fail to organize their social and domestic worlds in order to make everything fit within a single system and exclude entirely anything which does not fit. Nonetheless it remains important to connect the fictional developments to scientific conversations of the day, both because they would have been equally available to an educated audience at the time and because the history of biological inheritance in the nineteenth century is one that has not yet been told by literary critics. To examine the ways in which these disciplines cross-contaminate one another is

to read as a nineteenth-century audience would. By emphasizing the ways in which novels, and particularly gothic novels, are built around different kinds of domestic spaces, I draw attention to the larger stakes of thinking about conceptions of heredity in the nineteenth century: what it means to belong (or not to), what it means to define the individual according to past circumstances (the traits of one's ancestors) and present ones (one's proximity to networks of ethnically, socially or hereditarily similar beings).

I use the term *gothic* in this project not only because the most compelling expressions of this phenomenon occur in gothic novels; indeed, the novels I discuss in this project are, perhaps surprisingly, not the supernaturally-inflected works about man, animal, and monster one might expect to find in a discussion of the emergent genetic. I choose to analyze *Wuthering Heights* over *Frankenstein*, *The Tenant of Wildfell Hall* over *Dracula*, sensation fiction over *Dr. Jekyll and Mr. Hyde*, New Woman fiction over *The Island of Dr. Moreau*: in other words, I am less interested in formulations of monstrosities than in works that explore domesticity in all its variations, the “domestic gothic” rather than the supernatural or fantastic gothic.⁷ To put this concept in the language of taxonomies, I am interested not in what we might call the external challenges to a system of ordering, nor in nonhuman figures which boldly attempt to explode the system itself, but rather the system in its more subtle, internal contradictions, the moments in which those who seem to be fully assimilated into social hierarchies find themselves suddenly unsure of their standing, erased from their family tree, a casualty of the often totalizing logic of heredity. I define the gothic in the nineteenth-century novel not in terms of a checklist of motifs, or the presence of the supernatural (explained or otherwise), but rather as a challenge to the consensus-based strategies of the nineteenth-century novel at large. That is to say, the gothic in these readings is an interpretive mode that challenges the logic of inclusion and of social

boundedness. This definition relies upon and reacts against Elizabeth Deeds Ermarth's notion of the realist novel as a project of consensus, one which allows for a multiplicity of perspectives in order to provide a sense of neutrality and agreement and places events within a single continuous timeline in which each moment has meaning as part of a larger pattern (*Realism and Consensus in the English Novel: Time, Space and Narrative* 40-5). The gothic novel, or the gothic moment within the domestic novel, represents the instant when consensus breaks down, when the goal is no longer to "use language to get beyond language," in George Levine's classic phrasing (*The Realistic Imagination: English Fiction from Frankenstein to Lady Chatterley* 6). "Getting beyond language" means positing an extratextual reality that allows the reader to make sense of the individual's plight as part of a larger series of events. The plot of the realist novel, we might say, traces the individual's trajectory towards social, political – and, I would argue, biological – integration within a (bio)political unit. The gothic novel, on the other hand, challenges the validity of that consensus, and suggests that it is always exclusive, always flawed.

This definition leaves the gothic novel particularly capable of addressing the increasing concerns about heredity in the nineteenth-century for several reasons. First, threats to individual autonomy abound in traditional Gothic novels, coming from sources both natural and supernatural, and its protagonists often find themselves hemmed in and unable to act decisively due to monsters and villains, human and inhuman. Unlike the realist novel or the Bildungsroman, which focus on the protagonist's ability to shape his or her own identity, Gothic heroes and especially Gothic heroines are victims of circumstances beyond their control.⁸ By providing a space in which determinism can be taken seriously, Gothic novels simultaneously made room for a conversation about the extent to which individuals could be controlled by their own biological traits, passed down the generations, *and* by their environment (an equally important component

of early theories of heredity which I shall discuss in the first chapter). Furthermore, the Gothic focus on doubling, resemblances, and the uncanny, when combined with this discourse of determinism, leaves the novel primed to discuss what we would now call genetics. (Since this term would not become common parlance till later in the century, I generally use “heredity” and “biological inheritance” interchangeably in the project.)

Because the gothic is equally concerned with domestic spaces – and, as the early body of work on the female gothic has shown, the ways in which those spaces become equated with female bodies – my readings of the four novels in this project pay particular attention to the varying ways in which heredity comes to occupy the spaces and discursive frames of the domestic in each of its nineteenth-century meanings: as home, as agriculture, and as nation. Of course, the family tree or pedigree is the prime example of this process, and had been for centuries prior. While the traditional gothic elements of determinism, monstrosity, and the domestic all play an active role in each of my readings, the relationship of heredity to representation and categorization lies at the heart of the project. This move may come as something of a surprise – after all, the move toward ordering has more often been linked to the ethos of realism, which is based on the mimetic relationship. But as my introductory examples demonstrate, nineteenth-century discussions of heredity were almost inevitably preoccupied with what could *not* be mapped, that which could not fit neatly into taxonomic categories, principles and laws that were invisible. Collecting, organizing, mapping; drawing a genealogy or tracing traits across generations of domesticated plants or animals: because of the radical uncertainty of genetic principles, I argue in the chapters that follow that for nineteenth-century writers, these actions had double significance. Behind the declaration of order and the tracing of relationships across time and space, there lurked an assertion of instability that could reduce to shreds the

harmony of a society built around the family unit. For every identity proven or long-lost relative discovered in a novel's denouement, there was an altered portrait or a skeleton in the cupboard. In other words, the logic of collection, categorization, and, I argue, of the family tree itself, was flawed; even in the case of resolved identities, the novels I examine in this project have introduced the fatal notion of unstable or "gothic" taxonomies.

Contemporary attempts to theorize the gothic support my reading in this project. Many of my individual readings resonate deeply with the female gothic, in which the heroine attempts to escape literal and figurative imprisonment at the hands of male authority figures by negotiating the relationship between paternal authority and potential suitors. In the context of heredity, I will demonstrate the ways in which, during the nineteenth century, women found themselves instead negotiating their role as mother figures, on one hand empowered by the fact that biological inheritance had the power to subvert patriarchal paradigms of economic and legal inheritance, and on the other hemmed in by the burdens of their biological identity and role as nurturer *par excellence*. More broadly, my analysis of the role of order and systemization in the Gothic relies on the readings of the mode from the past quarter of a century that describe it as, in George Haggerty's words, "a version of reality less obviously empirical" (*Gothic Fiction* 5), but still very much *of* the empirical and empiricizing projects of the nineteenth century. Indeterminacy, Haggerty argues, must be inherent to a form that takes as its central goal the process of giving shape to interiorized, psychological, subjective worlds. Similarly, Vijay Mishra's work on the Gothic sublime and its connections to the postmodern agree with Haggerty's model for the role of indeterminacy; he writes, "We therefore, cannot make the Gothic determinate, we cannot impose limits upon it, since our judgments cannot be based, finally, upon a particular historical, political, or social imperative" (16). For Mishra, the Gothic is dominated by the trope of the

sublime, which forces reason to square off against imagination, and ultimately forces the dissolution of discourse itself, as it turns to an “epistemological inadequacy” which undoes the logic of history and the “capacities of the supremely confident, overpowering (though often insecure) Romantic ego” (36-8). The gothic, as David Punter says, “brings us face to face with an origin which is no origin,” and exposes the flaws in our myths of origin (*Gothic Pathologies* 1-2). But mine is not a project which seeks to locate the roots of the postmodern death of the author within an earlier period. Rather, I argue against Mishra’s (and to some extent Punter’s) ahistorical models; the indeterminacy I am interested in here is indeed very much a historical, political and social project. Like Robert Mighall, I wish to move away from readings of the Gothic which locate the mode solely in psychological space, which ignore the very real sociopolitical contexts in which it operated (though I find Mighall’s claim that gender identities operate outside that context disconcerting, to say the least).

A final note on terminology is necessary before I delve into each chapter’s variation on these themes. The *familiar* and the *familial* are etymologically related terms that take on slightly different meanings in this project. The familiar is based on the act of recognition by the individual based on communal and social structures. While the familial also requires recognition to a certain extent, it also relies on markers of heredity in order to work (though these are veiled to varying extents). The familiar is a mode of subjective identification, and it is tempting to assume that the familial is a form of objective identification: family relations can be mapped, charted, quantified ad nauseum. As I will discuss in the final section of this chapter, many in Emily Brontë’s England would have been well aware of the possibility that this may in fact be a false dichotomy: families are quantified and mapped according to highly subjective motivations – the basis of many a plot twist in Victorian fiction in particular. Which is more important, the

actual biological relationships between a set of individuals, or the perceived biological relationships? Thus the familial is a troubled area that reflects the confusing nature of heredity itself, which refuses to be encapsulated by strictly biological or cultural boundaries. There is no guarantee, then, that the familial is familiar; many nineteenth-century novels derive their dramatic plot and denouement from the split between familiar and familial, and their eventual reconciliation.⁹ This split is thus highly troubling to novelists, since it ultimately raises doubts about both the individual's capacity for perception and the possibility of a legible code of heredity that governs actions, relationships, and identities without being accessible to the individual. The obsessive search for family resemblances is an attempt to chart that code in ways that can be fully "read" and interpreted by the masses, or at least by the careful observer.

At the heart of this project, then, lies the central question of how nineteenth-century British culture attempted to make sense of the emerging discourse of biological inheritance. Part of the process is, by necessity, narrating the history of pre-Mendelian genetics and focusing in more narrowly on key moments in that history, which as a driving concern of the Victorians transcended the epistemological categories of science and literature. Over the past several decades, Victorianists and historians of science have produced a large body of work that explores reactions to evolutionary theory, which essentially describes genetics on a macro level across great periods of time. Studies such as Gillian Beer's *Darwin's Plots: Evolutionary Narrative in Darwin, George Eliot and Nineteenth-Century Fiction* (1983) and George Levine's *Darwin and the Novelists: Patterns of Science in Victorian Fiction* (1988) marked key foundational moments in the movement to connect the discourses of science and literature. Literary theorists like Jay Clayton, Barbara Gates, Robert J. Richards, Nancy Armstrong, and many others have taken up the torch of this branch of nineteenth-century studies that establishes wider patterns of discourse

between science and literature. By drawing connections between a particular thinker (in this case, Darwin), and the social implications of and reactions to his work, critics like Beer and Levine and their antecedents helped to strengthen the idea that the cultural imagination of a particular period is capacious enough to absorb and integrate the most technical of ideas. Most literary critics of the nineteenth century, whether they deem themselves cultural studies specialists, historians of science, or Foucauldians, have had little trouble accepting a strong, direct connection between multiple modes of discourse. This project continues in that vein; each chapter explores at length a particular text or moment in the history of the theorization of heredity and ties it to a contemporary novel. Because few Victorianists have told the story of heredity in and of itself, focusing in large part on evolutionary theory instead, each of my chapters features a more extensive analysis of the scientific works than is perhaps traditional in literary criticism – but, I firmly believe, it is a history that needs to be told in order to align the field of literary studies with one of the most important theories in recent human history.

Whereas earlier work in the field has focused mainly on inheritance at the macro level, across centuries and at the level of the species, in this project I will examine biological inheritance that is quite literally closer to home. Here I place the nineteenth-century family unit at the center of investigation as I investigate what the family means across the century: how it is used in novels, how it is defined (i.e. who is included and, often more importantly, who is not), and how it is used to organize social relationships. Of course, critics have been writing about the family's centrality to the Victorian novel in particular since the 1800s, often invoking Coventry Patmore's famous descriptor of "the angel in the house." According to this standard formulation, the family unit is divided into male and female, public and private spheres, with the wife and

mother holding the unit together by her virtue and her willingness to manage domestic life within the home while the husband and father exists in the public sphere.¹⁰

While many excellent social histories of the family pay close attention to gender, ethnicity, and sociology, and these will certainly play a role in this project, this study places the formulation of the family in nineteenth-century narratives against the tradition of natural history. Placing these two discourses in conversation with one another will illuminate the ways in which each one, from the very start of the century, was caught in a conflict between the seemingly oppositional categories of nature and nurture and helped to collapse the debate between the two. This juxtaposition also helps to shed light on the ways in which the solidification and popularization of scientific disciplines allowed nineteenth-century writers to rethink the organization of their social universe, to come face to face with the moments when the tidy systems of categorizing and classifying fail – at the level of the family, of gender, of the nation, and of the species. Finally, by exposing the fault lines in contemporary epistemology – the moments when these disciplines overlapped, sometimes productively and often in ways which seemed difficult or impossible to resolve – this project will give new perspective to that foundational unit of nineteenth-century social interaction, the family, and offer an alternative explanation as to *why* tropes like Patmore's had the staying power they did by the late century. But the novels I examine here move beyond the pedigree on the page to project the family tree onto varying spaces: Daniel's and Gwendolyn's experiences in their respective family homes are one example of this. My readings encompass the family home, but also the spaces of cultivation (the garden and farm) and, late in the century, the nation: each of them a variation of the domestic, of that which – like the family – helps the individual to define him- or herself through a sense of belonging while excluding outsiders. This first chapter presents Emily Brontë's

Wuthering Heights (1847) as one model for this process, which I will explore in each of the following chapters. Brontë's most popular work demonstrates a process of physical and cognitive mapping in which the family is forced into a logical but inaccurate order; in doing so it resists the chaotic and frightening possibilities of the genetic inheritance of traits. Though of course this is only one of a number of ways in which nineteenth-century thinkers tried to come to terms with changing ideas of the family, it is an important example of the way in which literary discourses take on scientific discourses and transform them into a particular mode of storytelling.

Each of these objectives nonetheless returns to the role of biological heredity in nineteenth-century narratives, and in this project I read the maps that link the discourses of science and literature, or rather, that project family relationships into the sites of domesticity, as a way to trace the development of thinking about heredity across the century. Whereas the realist novel depends on the unseen scaffolding of the orderly but often invisible family tree, the gothic novel obsessively reveals that scaffolding. Like Sir Hugo's inaccurate nose and Gwendolyn's face in the wainscoting, the Gothic focuses on the abnormal, the excessive, and that which cannot be neatly plotted. Nonetheless, I seek to avoid the common trap of simply reading a particular theory backwards onto history by describing a number of moments that prefigure a particular concept or trend. The most successful works in the history of science and literature acknowledge an interplay that moves forwards and backwards across time and space, rather than reading one set of ideas as fully determining another.¹¹ In other words, these family discourses do not just anticipate the theories of heredity and genetics that would develop later in the century; rather, they help to shape those theories in ways that pay particular attention to gender and class issues. There is no single version of "heredity" during any point in time in the nineteenth century, and each of the narratives described in future chapters has been chosen

because it describes the problems that occur when *conflicting* versions of heredity come together. By protecting and privileging a certain kind of heredity, these texts ultimately participate in and shape contemporary power dynamics.

The first chapter explores the stakes of Lamarckism, the late eighteenth-century notion that environment helps to shape the individual and can be passed down as an acquired trait, within the context of the family estate. Faced with a complicated and enclosed family narrative, I argue that the novel uses the space of the home and its boundaries in order to first provoke a series of misleading and inaccurate versions of the family tree, and then to force the reader to redefine notions of enclosure and belonging, to acknowledge the skeletons in the closet in broad daylight. The critical reception of the novel tends to conflate Emily Brontë's authorial identity with her identity as member of a family, an act I argue the novel is working against. The discourse surrounding the Brontë sisters – the Brontës *as* sisters – more often than not falls into the very same trap that novels like *Wuthering Heights* and *Tenant of Wildfell Hall* attempt to critique: the notion that a woman, in particular, is defined not only by the enclosure of the walls around her but also by her place in the family tree. The novel relies on notions imported from contemporary biological tracts, particularly Lamarck's work on inheritance and environment, to suggest a notion of the family not as a linear, pre-determined pedigree chart but as a fluid and permeable set of boundaries.

Chapter Two explores the ways in which Anne Brontë's *Tenant* more explicitly expands the conversations about heredity and inheritance in the late eighteenth and early nineteenth centuries beyond the confines of humanness to encompass plants and animals. Helen Graham's desire to remove her son Arthur from his alcoholic father's influence presents an awareness of both a purely biological inheritance and an environmentally dependent one that may only be

triggered in certain circumstances. As with each of the novels I read in this project, however, *Tenant* never fully resolves the problem of biology and environment, nature and nurture. Instead, it connects with the somewhat outmoded trope of animal and plant breeding to comment on the role of gender and space in the “husbandry” of family units. By placing Erasmus Darwin’s *Temple of Nature* (1803) and *The Botanic Garden* (1789-91), a pair of hybrid texts of scientific theory composed in verse, in dialogue with the novel, I argue that Brontë reclaims and reformulates debates about “breeding” and education in order to construct a model of heredity which favors maternal influence in spite of the economic and legal legacies of the patriarchal conventions of the time.

In the third chapter, I turn to Wilkie Collins’ *Armada* (1866) and *Legacy of Cain* (1888) and Charles Darwin’s *Variations of Plants and Animals Under Domestication* (1868) in order to emphasize a sea change in theories of heredity at mid-century. Darwin’s theory of pangenesis, one of the first explicitly materialist theories of heredity, relies on a loosely-defined notion of “influence” that actually fights against the fully determinist notions of heredity we tend to associate with Darwinism. Both Collins and Darwin, I argue, employ similar rhetorical tactics that allow them to simultaneously uphold and dismantle mid-century notions of biological determinism. Critics have described the sensation novel as a mode which brings the possibilities of criminal and abnormal tendencies within the safety of middle- or upper-class home. That is in one sense the purpose of the sensation novel - to redefine the domestic and to incorporate unhealthy traits into that atmosphere itself, and even to suggest that it is the domestic that allows the perpetuation of those traits. *Armada* asks the reader to consider whether behavior, or appearance, or age are solid indicators of inherited traits, before rejecting each solution. Just as *Wuthering Heights* withholds the story of Heathcliff from the reader, *Armada* and *The Legacy*

of *Cain* continuously toy with the reader's perceptions of relationships and identities. In doing so, both Collins' novels and *Variations* conflate language and reality: for both writers, the line between metaphor or analogy and real life becomes blurred, opening up a space in which the past can influence the individual but not wholly determine his or her actions and traits. This fluid form of heredity emphasizes the ways in which the Gothic neither fully embraces nor fully refutes the notion of determinism, even in the face of a fully materialized notion of inheritance.

In the final chapter, I will argue that Mona Caird's *The Daughters of Danaus* (1894) returns to Anne Brontë's earlier logic of "breeding" in order to sketch out the complicated relationship between women's bodies (the domestic space of the womb at the heart of the female Gothic) and nationalism (the nation being another domestic space that keeps intruders – foreigners – out). The novel, part of what I call the "New Woman Gothic," thus features a protagonist who finds herself entrapped by a set of metaphors based loosely on the domestic and the process of domestication. Hadria's Celtic blood is wrapped up in the novel's central question of whether heredity or culture is fate, as is her female body: yet this mysterious combination of instinct, "blood" or heredity, and environmental influences proves to be part of her downfall. Caird figuratively and, in her political essays, literally rewrites late-century ethnographies and histories of the nation which rely on male dominion over domesticated animals and a patriarchal family system, particularly those by Francis Galton and Walter Bagehot. By returning to a pretopian feminist past, and by allowing multiple contradictory theories of heredity and human's role in nature to coexist within her novel, Caird ultimately advocates for a reversal of teleological, progressive notions of history themselves.

The intervention this project makes in its fields by reading these texts in terms of gothic taxonomies is two-fold. First, I wish to challenge the notion, made so famous in *The Order of*

Things, that taxonomy dominated only the eighteenth-century episteme, while the nineteenth century came to rely only on difference and evolutionary metaphors. This commonly-accepted version of scientific history profoundly limits our ability to understand the extent to which taxonomy in the long nineteenth century was far more than a one-dimensional project of labeling disparate elements of a single system with the labels “same” and “different.” By reading taxonomy as a process with social and political consequences, we provide much-needed nuance to the equally reductive debate between hereditarians and their foes during the nineteenth century. Second, revising and complicating these notions forces us to rethink the gothic as a discourse that is merely oppositional in nature, existing only to challenge the narratives of Enlightenment. Reading the gothic as an interpretive model that actively unpacks the inconsistencies of systematization, rather than simply as a reactionary celebration of the irrational or the subconscious, allows us to read it as a discourse with a real contribution of its own to make to scientific debates about the biological and social role of heredity during the period.

Ultimately, each of these novels, besides showing an overt interest in the question of heredity, places the question of inheritance at the center of a particular space associated with one of the meanings of the domestic. I have argued above that these meanings are related insofar as they attempt to draw different kinds of boundaries around the concept of the individual and the human and to face the impossibilities of categorization and taxonomy. As a genre, the gothic is ultimately concerned with boundaries and permeability, the site where one body, or individual, or family, or identity ends, and where another begins. I begin my first chapter, and introduce a context for the first two chapters of the project, with the proposal that the mid-century debate about the authorship of the Brontë novels encapsulates the stakes of the contemporary debate

about one's biological inheritance and the extent to which it determines one's individuality. The rest of the chapter reads *Wuthering Heights* itself as an enactment of the fears surrounding family hybridity and shared identities, notions that stemmed from late eighteenth-century biologists' work on evolution and adaptation.

But the novels I examine here move beyond the pedigree on the page to project the family tree onto varying spaces: Daniel's and Gwendolyn's experiences in their respective family homes are one example of this. My readings encompass the family home, but also the spaces of cultivation (the garden and farm) and, late in the century, the nation: each of them a variation of the domestic, of that which – like the family – helps the individual to define him- or herself through a sense of belonging while excluding outsiders. This first chapter presents Emily Brontë's *Wuthering Heights* (1847) as one model for this process, which I will explore in each of the following chapters. Brontë's most popular work demonstrates a process of physical and cognitive mapping in which the family is forced into a logical but inaccurate order; in doing so it resists the chaotic and frightening possibilities of the genetic inheritance of traits. Though of course this is only one of a number of ways in which nineteenth-century thinkers tried to come to terms with changing ideas of the family, it is an important example of the way in which literary discourses take on scientific discourses and transform them into a particular mode of storytelling.

Chapter One

Crossing the Threshold of Hereditary Change in *Wuthering Heights*

Because the first half of this project explores novels by two different Brontë sisters and the very different ways in which they depict the bonds of the family unit, and because the Brontës themselves represent a curiously apt example of cultural attitudes toward biological relatedness in the early to mid nineteenth century, I begin this chapter with an extended discussion of the discourse surrounding the Brontë phenomenon. Because of their public declaration of their relatedness, which preceded similar declarations of their actual names and genders, the reading public was whipped into a frenzy of debate over whether a piece of writing itself could reveal social or biological facts about its author. The very primacy of the debate in the public consciousness indicates the extent to which nineteenth-century readers were willing to invest fiction with the power to comment on and influence contemporary scientific debates. From there, I present a reading of *Wuthering Heights* that emphasizes the extent to which family trees are themselves narratives dependent on context. Heathcliff is the gothic presence within the novel not because he is monstrous or unhuman in some essential way, as previous gothic readings of the novel have argued, but because he challenges the previously orderly taxonomy of the Linton and Earnshaw families, making them more or less uncategorizable. In other words, Heathcliff reveals the ways in which the family unit, the basis of the novel, is a flawed construct with arbitrary boundaries in spite of its incredible power to draw everything and everyone into its domain.

I. The “family mind:” The Brontës and the sisterhood of authorship

As an author, Emily Brontë rarely escapes her readers' constructions of her as one member of a family unit. From the moment of her first publications through the present day, she has always been "one of the Brontë sisters" – read and taught more frequently than Anne but without the critical acclaim of Charlotte. The Brontës' position as sisters – or rather, their publics' perceptions of their role as sisters – makes their story a fascinating place to begin thinking about how a nineteenth-century audience imagined family relationships and the inheritance of traits. Even as late as 1979, Susan Gubar and Sandra Gilbert remained entranced by the seemingly inexorable logic of sisterhood when discussing the Brontës in their seminal work, *The Madwoman in the Attic*:

Is it coincidental that the author of *Wuthering Heights* was the sister of the authors of *Jane Eyre* and *Agnes Grey*? Did the parents, especially the father, bequeath a frustrated drive toward literary success to their children? These are interesting though unanswerable questions, but they imply a point that is crucial in any consideration of the Brontës, just as it was important in thinking about Mary Shelley: it was the habit in the Brontë family, as in the Wollstonecraft-Godwin-Shelley family, to approach reality through the mediating agency of books, to read one's relatives, and to feel related to one's reading. Thus the transformation of three lonely yet ambitious Yorkshire governesses into the magisterially androgynous trio of Currer, Ellis, and Acton Bell was a *communal act, an assertion of family identity*. (250, emphasis mine)

Gilbert and Gubar employ language that is typical of psychoanalytic criticism in its ambiguous references to biological inheritance: an individual's "habit" may be acquired in any number of ways. But to claim that a particular *family* practices a habit, or that the family structure itself

produces a (possibly heritable) habit, indicates a more expansive version of individual identity, one that echoes late eighteenth-century notions of acquired or Lamarckian heredity. *Madwoman* assumes that the Brontës had a large share of control over their public personas: a “communal act” that “asserts” an identity indicates a constructivism that ignores the complicated reception history of the Brontës’ texts. Whatever their initial intentions may have been towards establishing a communal identity for themselves, the Brontës soon found a periodical culture fascinated by their lives and willing to project any number of identities upon them, regardless of any assertions they might make to the contrary.¹²

Aside from the relatively limited 1846 publication of a collection of poems by Currer, Ellis and Acton Bell, and until the 1850 publication of Charlotte’s “Biographical Notice” in her prefatory material to *Wuthering Heights*, in which Charlotte revealed the names of the sisters, their location and the previous deaths of Anne and Emily, none of the sisters had made any direct claim to relatedness in the guise of their public personas.¹³ Nor do their novels favor relationships between sisters in the traditional sense: a number of cousins and female confidantes take center stage, but few of the novels’ central relationships are explicitly stated as sororal. Why, then, have so many critics – from the 1840s to the present day – insisted on defining the Brontës not just as authors, or even as female authors, but as *sisters* specifically? And why, even in the context of a project which sought to read women writers of the nineteenth century as separate, autonomous beings, do Gilbert and Gubar nonetheless assume that the Brontë sisters were interested in a “family identity” in the first place, and that their choice of a common name would immediately indicate to readers that their novels were “related” to each other at all?

In the excerpt above, Gilbert and Gubar are responding to a long tradition of critics who find the Brontës fascinating as a trio but fail to distinguish each author from her sisters. In fact,

this later analysis descends from many of the questions first asked by nineteenth-century critics of the novels: were Acton, Ellis and Currer men or women; one person or three; and could novels be said to “resemble” each other in the same way that sisters might? And if so, what does this say about authorship and the creative mind, or about readership and the ways in which we interpret fiction? By beginning with reviews of *Wuthering Heights* rather than with the novel itself, I want to establish the novel as part of a conversation within a public of readers and thinkers. Because the Brontës present such an intriguing collusion between fictional lives and historical lives, it is worthwhile to look not at the biographies of the sisters in and of themselves, but rather at how a wider public perceived and interpreted those biographies. In this case, the mystique of literary celebrity combines with the particularly troubled family dynamics of *Wuthering Heights* to make the novel and the discourse surrounding it the most logical place to begin this project.

Wuthering Heights maps the Yorkshire moors and the world outside them, the properties that change hands throughout the course of the narrative, and the spaces of the house and home. Around each of these sites, Brontë’s characters map family relationships, (missing) origins, and (broken) connections. I will argue in my reading of the novel that as bumbling narrator Lockwood guides the reader through the physical spaces of the novel, (s)he who reads is forced to lay out multiple models of inheritance, both physical (of property) and physiological (of traits). At the same time, the reader who engages with contemporary periodical culture and especially with reviews of the text is goaded to perform two similar forms of mapping at a metatextual level: the physical setting for the novel in “real” terms (i.e. in western Yorkshire) and the physiological relationship between Ellis Bell, author of this text, and Acton and Currer Bell. Thinking about how and whether geographical and familial environments help to shape

personality and even the writing process can reveal significant cultural assumptions about individual development at mid-century – assumptions that *Wuthering Heights*, I will argue, tries to overturn.

The central question behind many of the early reviewers' pieces on the Brontë novels is whether a text in and of itself can reveal certain basic characteristics of the author – and, by extension, whether an author could realistically claim any kind of individuality apart from his or her gender, upbringing and location. For many, the text could theoretically indicate the author's sex, though the Brontës' work, and especially Emily's, helped to complicate the question. Indeed, after attempting to parse out various characteristics of male and female authors, both of which are present in *Wuthering Heights*, a number of critics settled for something in between: a brother and sister team, perhaps, or a monstrously masculine woman. The reviewer for the *Eclectic Review* in 1851 claims that

Though the internal evidence of the works is strongly favorable to the hypothesis of a female authorship, there is, nevertheless, a certain masculine air about their style, a repudiation of conventionalisms, and a bold, nervous cast of thought and action, which suggests the presence of the other sex. Slight inaccuracies in some matters of female dress are, moreover, alleged in proof of their being the production of a masculine pen. [...However] the general complexion and air of the works in question, [with their] instinctive attachments and occasional exaggerations, the depths of their tenderness and their want of practical judgment [indicate that the author must indeed be] a lady.

Generally, the characteristics most often associated with male authorship included brashness of character, an emphasis on action, inclusion of cruelty (i.e. Heathcliff's hanging of Isabella's

spaniel), and depiction of an “ugly” reality, including alcoholism, gambling and swearing. Critics assumed that a female author, on the other hand, would write about love, strong male heroes, the home, lasting family connections, children and (domesticated) animals.¹⁴ That authorial style could be indicative by itself of the writer’s gender is, perhaps, a curious assumption, but it aligns with the drive to find “resemblances” between the texts born of a single family environment.

Other reviewers investigated whether Acton, Ellis and Currer were indeed three separate authors or simply inventions of a single creative mind. As the reviewer for the *New Monthly Magazine and Humorist* wrote in January 1848, “Ellis Bell and Acton Bell appear in the light of two names borrowed to represent two totally different styles of composition and two utterly opposed modes of treatment of the novel, rather than to indicate two real personages.” Similarly, a reviewer for *The Palladium*, a Scottish periodical edited by James Hogg, wrote as late as 1850 – in response to and contradiction of the “Biographical Notice” – that the novels were “the works of one author under sundry disguises”:

A *nom de guerrist* has many privileges, and we are willing to put down to a *double entendre* all that is serious in this disclaimer. That any hand but that which shaped ‘Jane Eyre’ and ‘Shirley’ cut out the rougher earlier statues [*Wuthering Heights* and *The Tenant of Wildfell Hall*], we should require more than the evidence of our senses to believe. That the author of ‘Jane Eyre’ need fear nothing in acknowledging these yet more immature creations of one of the most vigorous of modern idiosyncracies, we think we shall shortly demonstrate.

(164-5)

That the reviewer should dismiss the author's own statement as part of an elaborate staging of "disguise" in the public eye, in this case in order to separate the author from earlier and, in the critic's eyes, less perfect works, demonstrates the power of the myth of authorial identity, but also the power of the individual author to craft an entirely new identity and the reviewer's responsibility to "correct" her publicly. These reviews provoke a series of doubts, not just about the authorship of these novels, but about the boundaries of identity itself and the questionable authority of personal claims to identity. Of course, gender (or perceived gender identity) certainly plays a role in these transactions. As Michael Warner notes in *Publics and Counterpublics*, a woman who puts herself into the public eye in the nineteenth century, especially the first half of the century, has already transgressed social norms and might even have been thought to transgress biological norms by behaving in ways "unnatural" to her sex (Warner 24). Thus the doubts about authorship lead to other kinds of uncertainties about the character of the author and her claims to unsullied womanhood: a woman who could write something like *Wuthering Heights*, a work this reviewer claims is both "premature" and "misdirected" – appropriate for a woman who cannot be trusted to control the pen(is) – is "probably wanting in the 'sweet attractive grace' which Milton so beautifully ascribes to Eve" (*Eclectic Review* 222). Or even more bizarrely, an American reviewer purports to predict the phrenologies of the Brontës based on their work. Of Charlotte/Currer, the reviewer stresses the "masculine mind, and half-masculine soul" of the woman capable of creating *Shirley* and its eponymous heroine – but of Emily/Ellis and Anne/Acton, whom he presumes to be one and the same, he writes only that "She would make a glorious lover, but a very uncomfortable wife" (T.C.C., *The American Review* 234).

Weak transatlantic copyright laws contributed to a similar confusion about authorial identity in the United States. An early American edition of *Wuthering Heights* was attributed to “the author of *Jane Eyre*,” and until at least 1849 most critics accepted this as fact. (The fact that this mistake was made in the first place may be attributed to either an attempt on the part of an unscrupulous publisher to hike up sales by trading on the earlier novel’s good reception, or to a real confusion about identity picked up from British periodicals, or some combination of the two.) As in the British periodicals, *Wuthering Heights* is most often compared unfavorably to its predecessor *Jane Eyre*; an 1848 review in *The Daguerreotype* notes that “*Jane Eyre*, it will be recollected, was *edited* by Mr. Currer Bell. Here are two tales [*Agnes Grey* was included in the review] so nearly related to *Jane Eyre* in cast of thought, incident, and language as to excite some curiosity. All three might be the work of one hand, - but the first issued remained the best” (190). Similarly, *The Literary World* notes in 1848 that “The book, throughout, is characterized by the same mind whose peculiarities of thought and expression are stamped upon the work of ‘Currer Bell,’ but we know not by what authority our worthy American publishers have explicitly named it as being by the author of *Jane Eyre*, in as much as in the English advertisement *Wuthering Heights* purports to be by *Ellis Bell*” (243).

Still other reviewers, anticipating the kind of claim with which I began this section, felt comfortable making claims about the Bell/Brontë family as a whole – its shared traits and their expressions. In the *North American Review*, 1848, P.E. Whipple claims that

The novel of *Jane Eyre*, which caused this great excitement, purports to have been edited by Currer Bell, and the said Currer divides the authorship, if we are not misinformed, with a brother and sister. The work bears the marks of more than one mind and one sex, and has more variety than either of the novels which

claim to have been written by Acton Bell. The family mind is strikingly peculiar, giving a strong impression of unity, but it is still male and female. (356)

While Whipple's justification for "male" and "female" writing is consistent with other reviewers' treatment of gender, I am more interested in what this passage reveals about Whipple's assumptions regarding "the family mind," which he later describes as marked by a "strong hold upon the elements of character, and that decision of touch in the delineation of the most evanescent qualities of emotion" (359). For Whipple, then, imagining the family is one way to imagine authorship outside the rigid boundaries of social prescriptions of gender. Put another way, imagining a single novel as both masculine and feminine, and as incorporating more than a single authorial personality or perspective, is to assume that hereditary connections outweigh even the mandates of gender in determining individual identity.

Nor is Whipple the only critic to imagine this set of novels via the language of family relationships and family resemblances. However, Whipple's attitude regarding the flexibility of genetic connections is rare among critics of the period. Far more reviewers who commented on the "family identity" of the Brontës turned it to the authors' disadvantage. For example, an 1848 reviewer of *Tenant* for the *Athenaeum* claims that

"The three Bells, as we took occasion to observe when reviewing 'Wuthering Heights' [*Athenaeum*, No. 1052] ring in a chime so harmonious as to prove that they have issued from the same mould. The resemblance borne by their novels to each other is curious. 'The Tenant of Wildfell Hall' must not hope to gain the popularity of her elder sister 'Jane Eyre,' – but the blood of the family is in her veins." (670)

Tenant and *Wuthering Heights* in particular were thought to suffer by their “family resemblance” to *Jane Eyre*, which only served to highlight their inadequacies of style, characterization and plotting. And yet, continues this critic, “Were the metal from this Bell foundry of baser quality than it is, it would be lost time to point out flaws and take exceptions. As matters stand, our hints may not be without their use to future ‘castings’” (671). Interestingly, critics who concerned themselves with projecting hereditary traits onto the family as a whole also largely thought about these traits in relation to a certain space – most often, “the North” in general or western Yorkshire specifically. In this early review for the *Athenaeum*, for instance, the clever play on “Bell” with castings and foundries chimes with the Brontës’ identity as gritty northerners, familiar with both the post-Industrial Revolution factory towns and with the bleak countryside of the moors. And in a review of *Wuthering Heights* and *Agnes Grey* from the same publication in 1850, the reviewer notes that “a certain uniformity of local colour and resemblance in choice of subject” has led to questions of whether there were three separate authors or just one; but that the similarities could arise from nature or nurture: “either from identity, or from joint peculiarities of situation and of circumstance” (1368). Both biological and social identities are firmly rooted in geographical space, and the particular space of the Brontës is one that heightens the effect of inheritance of traits: in a place like Yorkshire, comments M.J. Sweat in an 1857 article in the *North American Review*, “Hereditary traits become intensified, whether they are virtues or vices,” while “All contracting influences are strengthened when they act unchanged upon generation after generation; social laws bend under the unchecked power of the hereditary rich and the exhausted energies of the hereditary poor; and public opinion sides with the strong, or contents itself with low and timid whispers of ineffectual disapprobation.”

Some critics went even further and anthropomorphized the texts, seeming to make claims that the texts themselves were “related” to each other and the authors merely extensions of the written page. An 1848 review in *The Critic* of the 1846 collection of poems notes that

“A family likeness pervades the productions of the three brothers – we suppose they are, - the same sort of likeness that one frequently sees physically exemplified in families, where the features of each member, when examined, are different, and yet, when viewed as a whole, have a resemblance as well as a distinctive dissimilarity [...] it is in the occasional glimpses in each, of the characteristics of all, that the family likeness to which we have alluded, in part consists. As a look or a tone in one brother will suddenly recall another, so here will an expression, a passage, or even the whole tone of a piece in one of these authors, remind us of another, whilst at the same time the individuality of each is strictly preserved” (486).

Given that this review was published only after the publication of *Jane Eyre* and *Wuthering Heights*, when public interest in the Bells had already been piqued, we can assume that the “resemblance” this critic discovered was already a foregone conclusion, given the very similar conversations already taking place about the novels. Even more strangely, some critics shifted from the register of simile to that of metaphor, implying that the texts did not only replicate the likeness of the authors, but that the texts were alike in and of themselves. An article in the 1848 *Ladies’ National Magazine* explores the American confusion over authorship of *Wuthering Heights* by stressing its lack of resemblance to *Jane Eyre*, and thus claiming the two novels to have different “parentage” (111). Two decades later, W.H. Cooke laments in “A Winter’s Day at Haworth,” published after all three sisters had died, that the Brontës’ only descendants are their

novels, since they left no human children. The gendered context of these early reviews lends extra significance to both the reviews affiliating family identity with geographical space and those that claim the novels as the Brontës' children.

Each of these pieces of the extra-textual puzzle surrounding the publication history of the novels affiliates the work of women writers with the domestic, either as the home space or as the glue which holds together a particular family unit. As women, as northerners, and particularly as sisters, the Brontës had little chance of working outside a set of predetermined categories in the minds of their reviewers. Though, as I shall demonstrate in the next section, *Wuthering Heights* cautions its readers against the trap of narrativizing the family and reading heredity as a kind of determinacy, the Brontës themselves became victims of this same tendency in the public mind. The Brontës presented a unique opportunity for the public to think about how family identity can help to shape, color or define the individual. Because the history of its reception so tidily reenacts the processes of mentally constructing family identities that take place in the narrative, *Wuthering Heights* is a logical place to begin this project. It does, however, beg the question of causality: does Emily Brontë suggest a process that takes root so strongly in the minds of her critics that they can only replicate its logic? Or is she describing, and perhaps herself subject to, a much broader trend of thought during the period? I will return to the question in the chapter's conclusion, but for now it will suffice to say that the answer is both. In the next section, I read *Wuthering Heights* as a radical cognitive experiment, one that seeks to undo its readers' perceptions of the "natural" logic of domestic relationships and inheritances, and replace them with a new configuration that both challenges and succumbs to the logic of a Lamarckian version of biological inheritance.

II. Constructing family narratives in *Wuthering Heights*

Elizabeth Gaskell devotes the entire first chapter of *The Life of Charlotte Brontë* to physical description of the territory that has become known, in part because of Gaskell's biography, as "Brontë country." Indeed, after the appearance of Gaskell's text in 1857, a number of reviews emerge that can only be classified as literary tourism: journalists traveling the same route as Gaskell, walking the road from the small West Yorkshire town of Keighley to the even smaller village of Haworth, and even entering the church and parsonage that housed the Brontë family with the intention of reaching the "real" settings of the novels.¹⁵ Eager to find what Gaskell calls "a peculiar smack and flavor of the place" that could inspire such strange and well-known novels, these reviewers freely speculated on how a particular place – the cold and strange atmosphere of Yorkshire, the country village, and the stone architecture of the parsonage at the top of the hill – could produce the women who would in turn create those strange, cold, and slightly vulgar works of fiction. Indeed, the mythos of Brontë country persists today, as inquisitive visitors can make the same pilgrimage to Haworth (with the same lack of direct public transportation) and walk through the parsonage, now transformed into the Brontë House Museum, before buying assorted Brontë memorabilia. Why are we so interested in the connections between fictional text and "real life," both from our own perspective and from (what we imagine to be) the Brontës' perspectives? Whether or not such a connection exists is less important than the fact that we imagine it to exist. The link between place and event is also a driving concern of *Wuthering Heights*, and the house itself becomes the epicenter of recognition, the site at which family trees are both constructed and dismantled at the thresholds of the novel's eponymous house and its nearby neighbor, Thrushcross Grange. By troubling the notion that domestic relationships can be naturally perceived by outside observers, the novel attempts to weaken the seemingly self-evident binds of heredity, even while it makes them more permeable

and elastic; in doing so, it depicts a world in which domesticity itself loses its value and becomes nothing more than a façade that enables the misery of forced biological connections.

The characters in *Wuthering Heights* vacillate between two modes of thinking about biological inheritance. The first of these emphasizes wholeness and continuity: of a family line, of the ownership of property, and of recognized patterns of kinship and social arrangements. Lockwood stands in for this utterly legible understanding of the genetic; this mode functions like the Great Chain of Being, that eighteenth-century pedigree of all species, from the most complex and “perfect,” (man, of course, and above all, God) to the lowest, the least complex. Each species or family has its place and its relationship to those higher or lower on the scale is predetermined by its location. Like Hareton’s recognition of the ancient inscription of the family name over the door of the Heights, we must learn to read the importance and eternal nature of the family name. In this *Wuthering Heights*, the two ancient (and land-owning) families unite, encouraging continuity and dominance with a strong father figure at the helm. Beneath this narrative lies a second *Wuthering Heights*, one that insistently pushes its gothic challenge to taxonomy upon its readers. This second mode of heredity dwells on unknowable pasts and unforeseeable futures. Here, the comforting continuity of family resemblance becomes terrifying, and both family identity and individual identity are radically destabilized. Heathcliff exemplifies the frighteningly unknowable version of biological inheritance: his origins can never be known for sure but his virility seems to ensure that he will control the Earnshaw and Linton family inheritances, both economically and biologically. My reading presents the narrator Lockwood as a man caught between these two models, a man who sees a false “natural” schema around him, and who must be disabused of this Chain of Being as he enters the strange world of the Lintons and Earnshaws. For Lockwood (and the reader), the home is at the center of the normalized

family tree, but it quickly becomes the site of moral confusion and broken connections. Ultimately, Heathcliff stands in as the gothic element which reinforces Lamarckian soft inheritance, which I will unpack further in the final section of this chapter. If the Lintons and Earnshaws present a family lineage that is stable if not functional, Heathcliff's challenge to their orderly system is biological, environmental, and terrifyingly unpredictable.

Wuthering Heights is perhaps the most traditionally gothic of the novels I write about in this project, particularly because of its portrayal of a woman hemmed in not by an Italian castle à la Radcliffe, but nonetheless by a kind of domestic fortress whose inhabitants mirror the threatening and "savage" landscape that surrounds it. The Heights is wild and untamed, especially compared to its supposedly more civilized neighbor, Thrushcross Grange, whose name implies the ordered and controlled growth of farmland. Quite early on, and particularly during the scene in which young Catherine and Heathcliff spy upon the home life of the Linton family through the window of the Grange, the novel establishes the basic conflict between these two models of home life, and the tendency to locate much of this conflict at the thresholds of the Heights and the spaces between the two properties. As Judith Flanders notes, the nineteenth-century home carried important ties to the taxonomy and classification that dominated contemporary scientific disciplines: "The house was the physical demarcation between home and work," she notes, "and in turn each room was the physical demarcation of many further segregations" of status and hierarchy (xxv). One function of this separation of social functions into different spaces was that "each separate space had its own privacy, and each enclosed a smaller privacy within it, like a series of ever smaller Russian dolls [...] Nothing was to be allowed to escape from its own particular container" (xlvi). The constricting implications of domestic space for women in general, and the specific consequences of anorexia and madness

for Catherine Earnshaw, have long been noted by critics.¹⁶ This reading is more concerned with the moments which threaten escape from that containment. As narrator, Lockwood's task in the novel – and by extension, the reader's – is to push these boundaries, to blur the demarcations that link space and function. In doing so he does not question hierarchy and proper social order (indeed, he is more interested in upholding them). Rather, in his own bumbling way, Lockwood leads us to question the nature of inheritance as it was then understood and the link between place and character.

Susan Bernstein notes the tendency in Western thought to link house and thinker, since both create an edifice based on the Cartesian opposition of interior and exterior (5). The “natural” link between the architectural (of buildings) and the architectonic (of knowledge and the archive) gets broken down, she argues, at the entrance to the house: “[...] the rupture between the architectural plan and its physical instantiation [...] opens the gap between the synchrony of conception and its diachronous realization. The relation between experience and understanding stumbles over this threshold” (5). If, applying a metaphor derived from Cartesian logic, we think of the self as the result of building/*Bildung*, an interiorized, architectural creation directed by an unfettered individual, then we can imagine the threshold as the space which is neither self nor other, the literalization of liminality in which both can be examined from a slightly different perspective. In order to think about the very literal as well as the figurative uses of thresholds in the novel, and the ways in which the threshold comes to be seen as a space in which a system of knowledge can be examined by those working within that system (i.e., the subject of the *Bildung* can examine the architectonic *building* of knowledge), it is helpful to meditate briefly on the origins of the word.

Threshold is a compound word incorporating the complicated Gothic root *haldan*, to watch over or to herd or pasture, in the sense of livestock (OED). From its beginning as a term describing humankind's capacity to domesticate animals, usage shifted to refer more broadly to other kinds of power relations; the OED lists such later usages as "the action or fact of having in charge, keeping, guarding, possessing, etc."; "occupation possession; defence, protection, rule"; "imprisonment"; "a place of refuge [...] a lurking-place (of animals)' "fortress". Thus a *hold* is a form of property, eventually becoming more highly specialized and technical (copyhold, leasehold) as well as more general (household). The root *haldan* or *hold* encapsulates the tension that comes from conflicting definitions of a single word, tensions that stimulate a set of questions about heredity and its (im)permanence, its connections to external factors like property rights and economic inheritance, and its simultaneous gestures towards liberation and imprisonment. *Hold/haldan* incorporates two key concepts for the chapter and for the project. To think of a hold as an enclosed piece of property in which animals may be kept and observed is to think of both a primal need for humans to rely on the land (writ broadly) for survival – or, as of humans in a "natural" state – and of a set of human relationships that relies on property and exchange in order to make sense of the world – humans in a "civilized" state. It also establishes a thread that I will pursue more strongly in the following chapter on *The Tenant of Wildfell Hall*: a hold can be an enclosure of land for the purpose of raising animals: the site of domestication. On the other hand, the act of enclosure, as social and economic historians of the nineteenth century have long established, constitutes a consolidation of power relationships by forcing land – and, in this case, animals – to conform to a man-made function and form.¹⁷ Enclosure is both inclusive and a form of exclusion: to possess something tangible like land, or intangible like the right to use that land, is also a way to limit another's access to that resource. In the context of its etymology, the word

expresses both an act imposed by an outside party, an act of aggression, *and* an act from within – an act of defense.

The novel's take on family relationships at first seems inclusive: Heathcliff is the outsider who is brought into the family, however reluctantly. But Heathcliff is arguably the family's *only* outsider: to employ the metaphor of domestication, the Earnshaw family tree is one whose branches are notoriously pinned back from growth. The novel, I argue, is not about incest necessarily (or solely), but about the discourse of healthy diversification. Charlotte Brontë famously hints at this view in her Editor's Preface to *Wuthering Heights*, explaining that the novel's setting in "the wild moors of the north of England" is foreign, "unintelligible" and "repulsive" to more civilized readers. Emily was "a native and a nursling of the moors," she notes. Whereas the novel is "moorish, and wild, and knotty as a root of heath," Emily would have grown "like a strong tree, loftier, straighter, wider-spreading" (313-5).¹⁸ In this configuration, that which is wild and untamed is pure and healthy though sometimes complicated, while that which is confined and domesticated has lost its vibrancy and its virility. As an outside organism, Heathcliff is both necessary for the continuation of the family and responsible in large part for its implosion. The key is finding the balance between too much containment and too much diversification.

Similarly, as I will demonstrate below, the threshold is both *of* the structure of the house and a gateway *to* that structure. The idea of being both within something and outside it will come into play in a number of important scenes in the novel, most notably the scene in Chapter Three in which Lockwood encounters Cathy's ghost outside the window of *Wuthering Heights*: she is within his mind and external to it; within the house and outside it. But I am also interested in tracking this phenomenon on several other levels. First, at the level of one particular incarnation

of the relationship between author and reader: specifically, the way in which the complicated family structures of novels like *Wuthering Heights* spur a process of readerly mapping and calculation while reading. And second, the way in which this very process links the fictional world of the novel with the world external to it in very particular ways: I will argue that, weedlike, the somewhat obsessive process of mapping a family tree cannot be contained within the realm of suspended disbelief. This is not to say, of course, that the obsessive practice of family charting somehow began with *Wuthering Heights*: after all, literary pedigrees trace back at least to the Old Testament. Rather, the layering of textual realities within and surrounding the novel makes a compelling case for how strongly yet subtly it continues to shape its readers' perceptions of family, heredity and genetics. Thus the second part of this close reading focuses less on the space of the house and more on the cognitive tracing of resemblances, repeated names, and repetitive actions. Both of these webs ultimately point toward the admittedly complicated map of the family tree, and more broadly toward a reevaluation of how to define relatedness based on biological markers.

First, then, I wish to examine a set of closely-related scenes sprinkled throughout the novel that locate the threshold as a space of disorientation. Again and again, a character approaches the house at *Wuthering Heights* and enters the threshold, only to find him- or herself entirely discombobulated as to the series of relationships laid out before him or her.¹⁹ For Lockwood, for Nelly and Cathy, and even for Linton, crossing this threshold involves a serious breakdown of identity. In each instance, the character who approaches the threshold loses the intuitive ability to determine the relatedness of those within and by extension, his or her own place within the scene. The first of these scenes introduces not only Lockwood but the reader to a triangular tableau of Heathcliff, Hareton, and Cathy. (For clarity, I will refer to the elder of the

two Catherines [Earnshaw Linton] as Catherine, and the younger [Linton] as Cathy.) Though Lockwood generally seems a rather clownish character whose constant misinterpretations provide comic relief from the dark atmosphere of Heathcliff's world, his confusion here is indicative of a larger problem facing the residents of Wuthering Heights. Lockwood finds his expectations subverted again and again; instead of a gentleman sitting before his fire, he finds Heathcliff to be a "dark-skinned gypsy" who nonetheless could perhaps fit Lockwood's preordained image of the country gentleman if it weren't for his slovenliness (5). He immediately relies on his own "sympathetic chord" to declare that he and Heathcliff are perhaps cut from the same fabric. In a rare moment of self-awareness, however, Lockwood acknowledges that he is, after all, only projecting his own perceived attributes onto a stranger, that it is more comfortable to read others as a mirror image of ourselves than it is to recognize inherent difference.

Lockwood's behavior here establishes a curious persistence towards narrativizing experience in terms of a family network, a trait shared by many of the novel's characters. Lockwood assumes that any group of people living together must share a set of common bonds through blood relationships and marriages, so he sets out testing various hypotheses. Attempting to make idle conversation, Lockwood notes that "it is strange how custom can mould our tastes and ideas; many could not imagine the existence of happiness in a life of such complete exile from the world as you spend, Mr. Heathcliff; yet, I'll venture to say, that, surrounded by your family, and with your amiable lady as the presiding genius over your home and heart--" (10). Heathcliff mocks Lockwood's attempts to put together the pieces of this family puzzle, deliberately misinterpreting his guest's words: "...you would intimate that her spirit has taken the post of ministering angel, and guards the fortunes of Wuthering Heights, even when her body

is gone” (10). Lockwood assumes the conventions of a country home and meets with mockery, but Heathcliff too reinforces the stereotype of wife as angel. Both Lockwood and Heathcliff assume that the household should naturally be dominated by highly gendered caricatures. It is not just the fact that the ordered (male) mind arranges domestic scenes for itself that is important here, but also the socially respectable but constricting form these scenes take.

Lockwood’s second attempt to sort out this set of relationships is little better: “Then it flashed upon me – ‘The clown at my elbow, who is drinking his tea out of a basin and eating his bread with unwashed hands, may be her husband. Heathcliff, junior, of course. Here is the consequence of being buried alive: she has thrown herself away upon that boor, from sheer ignorance that better individuals existed!’” (11). The boundaries of Lockwood’s fantasy about family relationships expand here: for the first of many times, he fantasizes himself into the inner circle of this heretofore unknown family, casting himself in the role of Cathy’s worldly and knowledgeable husband. As Lockwood attempts to penetrate this family circle, he invites the reader to do so as well. Thus it is not only Lockwood’s set of assumptions about the proper mode of familial relations that is upset; this scene is also a signal to the reader that in this world, the balance of domestic life is far more fragile than it appears. As each set of relationships is brutally denied – Hareton is *not* “the favoured possessor of the beneficent fairy” as Lockwood fancifully puts it, for example, but rather, in Heathcliff’s more animalistic diction, “her mate is dead” – the reader shares Lockwood’s growing confusion.

Interestingly, a few chapters later, when Nelly attempts to explain the complicated set of relationships, Lockwood seems to have no problem understanding her. Whereas he has previously placed himself as outsider, he refers to Cathy as an “exotic that the surly *indigenae* will not recognize for kin” (27). Once again the specter of natural history haunts the text, as

Lockwood refers to Cathy in terms more fitting for an amateur botanist who comes across a new species of fern. In this context it is important to note that for Lockwood the family entity is connected by disease and disorder (social, mental or possibly physical), and that in this sense at least, Cathy is not connected to the rest of the family. In reality, of course, he has already identified Heathcliff as “gypsy-like,” and Nelly confirms his conjecture, but Lockwood seeks to connect himself to Cathy by inserting himself into the family history, or rather by confirming his non-relatedness to the family at the same time as Cathy’s. As Nelly explains the real set of family relations, the dialogue is riddled with pronouns missing a clear referent and strung-together possessives (27). The following exchange between Nelly and Lockwood is one example of straight dialogue that begs for misinterpretation: “‘*He* had a son, it seems?’ ‘Yes, *he* had one – *he* is dead.’ ‘And that young lady, Mrs. Heathcliff, is *his* widow?’ ‘Yes.’” (27, emphasis mine) The referent for the male pronoun shifts during the conversation but neither character seems to notice or mind. Nelly represents Hareton and Cathy as the last of their respective lines and declares that Heathcliff’s history is “a cuckoo’s” (28). Once again, the scene seems to unravel at the point at which the familial can no longer be mapped in a legible way.

Of course, Lockwood’s most famous confrontation with boundaries and thresholds is his encounter with the ghost of young Catherine the elder. Many critics have noted the dynamics of space and enclosure in this scene: Lockwood is inside an “old-fashioned couch,” a “little closet” set against a window where he feels “secure against the vigilance of Heathcliff, and every one else” (15). As he stares at the various iterations of Catherine’s name, he has his first vision, in which “a glare of white letters started from the dark, as vivid as specters – the air swarmed with Catherines” (16). The language here is tellingly ambiguous: he sees the letters of her name themselves, of course, but does he also see iterations of Cathy, whom he has just met, or

imagined renderings of the elder Catherine? Lockwood neglects to distinguish between text and body in this moment; he is no longer concerned with the boundaries of family but with the very boundaries of personhood. Lockwood breaks through the formerly safe threshold of the closet-bed in order to escape and discovers the ghost of young Catherine. It is at this point that his questions about family relationships expand to incorporate radical doubts about his own physicality and selfhood. When he touches her “little, ice-cold hand” he is no longer sure of his own body or of hers; living and dead, waking and sleeping become hopelessly confused. As he tries to escape, Catherine’s specter begs to be let in; but moments later we find him walling himself in again as he has tricked the child-ghost into letting go of his hand. Perhaps the most disturbing moment in this nightmare scene is when Lockwood, so keen during the day to engage himself with the family, tries to force separation: “finding it useless to attempt shaking the creature off,” he says, “I pulled its wrist on to the broken pane, and rubbed it to and fro till the blood came down and soaked the bed-clothes” (20-21). There has been no indication thus far that Lockwood is capable of this kind of brute violence, echoed later in the novel by Heathcliff and Hindley; here, he must face the fact that he may no longer recognize himself and his relationships to those around him. And yet, moments later, Lockwood is back to his wakeful egotistical self, declaring that he is “desirous to spare [Heathcliff] the humiliation of exposing his cowardice further” – a rather tall order for someone who has just been caught screaming in the night (21). By continuously projecting himself as an idealized Heathcliff figure, as a wealthy, suave country gentleman, Lockwood is able to shut down his earlier doubts about his own selfhood and return to his nostalgic projection of family and his possible place within it.

Whereas Lockwood constantly enforces his own misinterpreted boundaries, Catherine’s purpose in the novel is to destroy those boundaries and question the very essence of identity. In

what is perhaps the novel's most famous passage, Catherine offers a direct challenge to the bounded, contained version of familial relationships on the one hand and of personal identity on the other that Lockwood offers in the opening scenes. Whereas Lockwood is invested in patriarchal family schemes that remain enclosed within a single household, Catherine vacillates between two households, the Lintons' and Heathcliff's, and refuses to recognize that she must choose one or the other: "Who is to separate us, pray?" (64). She quickly moves beyond the traditional family structure of the household to the very boundaries of personal identity: "What were the use of my creation if I were entirely contained here?" she asks; "if all else perished, and *he* remained, I should still continue to be; and, if all else remained, and he were annihilated, the Universe would turn to a mighty stranger" (64). Catherine refuses the bonds of *family* here – as Nelly puts it, she is "ignorant of the duties you undertake in marrying" and is a "wicked, unprincipled girl" (65) – but not of the *familiar*. Her notion of family is an expansive one that moves beyond traditionally restrictive bounds of heredity, and even of personhood. Catherine's declaration that "I *am* Heathcliff" is a challenge to the discourse of the traditionally bounded relationships that Lockwood advocates and Nelly reinforces. Her resistance to this mode of "proper" inheritance and connectedness through a single family unit makes her not only unorthodox but also "wicked" and amoral.

Isabella's entrance at Wuthering Heights is situated in a similar manner. She has willingly entered into a marriage with Heathcliff and expects to be treated as the mistress of the household, but her letter to Nelly acknowledges early on that the bonds of family cannot be preserved in normative ways: "How did you contrive to preserve the common sympathies of human nature when you resided here?" she asks. "I cannot recognize any sentiment which those around share with me" (106). Her insistence on *recognition* both echoes Catherine's earlier

monologue about finding Heathcliff everywhere, Heathcliff's similar statement about Catherine, and the many instances in the novel in which one character recognizes a family trait in another (usually taking the form of Catherine's image haunting the rest of the family and appearing in unexpected ways, as I will explain below). Thus *recognition* is linked in this novel directly to *resemblance*; to look like another is as much an uncovering of what is familiar as the act of recognizing another. *Familiarity*, here, is a key indicator of *familiarity*. So when Isabella begins her letter to Nelly with a denial of recognition, a denial of sympathy, it also functions as a complete refusal of traditional patterns of kinship. She goes so far as to deny Heathcliff's very humanity; she cannot and moreover will not *recognize* him as a member of her family, as her husband, or even as a human: "Is Mr. Heathcliff a man?" she asks. "If so, is he mad? And if not, is he a devil?" (106). Like Heathcliff and Catherine, Isabella is haunted by a set of resemblances: Hareton has "a look of Catherine in his eyes and about his mouth" (107) while Hindley's eyes "were like a ghostly Catherine's, with all their beauty annihilated" (108). And like Lockwood, Isabella imagines a traditional set of relationships among those inside the house, only to find her assumptions incorrect and herself displaced from her assumed position as mistress of the home. "I listened to detect a woman's voice in the house," she writes, "and filled the interim with wild regrets and dismal anticipations" before asking for the maid-servant (109). Upon being told that there is in fact no servant to care for her, and that there are no women in this house, Isabella's own sense of identity seems to begin to break down; she goes so far as to hold Hindley's knife-pistol and imagine herself wielding it against Heathcliff (109). Later she declares that "the concentrated essence of all the madness in the world took up its abode in my brain the day I linked my fate with theirs" (112). Finally, Joseph helps to obliterate any sense of her personal identity by a seeming slip in which he refers to her as "Miss Cathy" – he casts her in

a role that has already been played, yet which she seems destined to repeat (113). Ultimately, Isabella's expectations of a traditional set of family relationships, like those of Lockwood, have been subverted. Isabella's vision of herself as mistress of a new household, like Lockwood's visions of himself as welcome and sophisticated guest, have been crushed. In both cases, the entrance to *Wuthering Heights* follows a similar pattern: first, uncertainty about how each character is genetically related to each other character; second, clarification of those relationships; and finally, in the process, an undermining of his or her own sense of a stable personal identity.

In the third generation of the novel, Hareton and Hindley Earnshaw and Cathy Linton constantly provide ghostly reminders of Catherine's physical features, particularly her eyes. While the concept of resemblance addresses biological traits that manifest themselves in physical ways, the concept of repetition functions similarly with a key difference: actions repeated from one generation to the next (across time, rather than across the space of individual bodies). In *Wuthering Heights* and elsewhere, these repetitions raise the question not of how physical traits may be passed down from one generation to the next, but whether and how character traits may be inherited. This latter question is the more complicated and more interesting of the two; whereas in most cases a similar pair of eyes or a nose leaves little room for explanation outside of hereditary mechanisms, a particular disposition or even a specific action opens up the possibility of cultural or environmental influence alongside biological influence, an issue I will return to in the chapter's conclusion.

Young Cathy, who looks so much like her mother and also, at least according to Nelly, acts like her, also experiences confusion of relationships upon entering the Heights. Her experience at first seems very much like Lockwood's in the novel's first scene, but any familial

relationships she discovers will help to define a part of her own identity. Whereas Lockwood is very much aware of his outsider status and perhaps hopes to take advantage of that status, her experience echoes those of her mother and Isabella. Cathy first assumes that Heathcliff is Hareton's father (151), as Nelly notes the irony of the fact that "He could not stand a steady gaze from her eyes, though they were just his own" (151). She next guesses that Hareton is a servant of the household (a reversal of Lockwood's assumptions). Upon finding out that they are indeed blood relations, she tries to deny that relationship by claiming kin with Linton: "Papa is gone to fetch my cousin from London," she says, continuing that "My cousin is a gentleman's son" (151). Nelly's response opens Cathy up to the terrifying possibilities of a complicated biological network: "people can have many cousins and of all sorts, Miss Cathy, without being any the worse for it; only they needn't keep their company, if they be disagreeable and bad" (151). For Cathy, familial association reaches beyond the boundaries of physical connectedness; biological connections are enough to link her irrevocably and detrimentally with someone she has already identified as servant-like and clownish. Nature clearly trumps nurture, and her newly discovered relatives function as a moral taint on her own status and possibly personality. Nelly's narrative echoes Lockwood's language of indigenous and native plants here as she examines Hareton's physiognomy: "Good things lost amid a wilderness of weeds, to be sure, whose rankness far over-topped their neglected growth," she explains to Lockwood, "yet, notwithstanding, evidence of a wealthy soil that might yield luxuriant crops under other and favourable circumstances" (152). Nelly's view of heredity, by contrast, is perhaps most forgiving of any character's in the novel. Heritage is not destiny here, even as Lockwood himself reinforces Heathcliff's exclusion from the family tree by referring to him as a non-native species. For Nelly, an incomplete and

unknown lineage represents possibilities of greatness, even for someone like Heathcliff, who could after all be the child of royalty or of the wealthy (43).

Linton's removal to Wuthering Heights replicates these earlier processes before he even leaves the Grange: "Mamma never told me I had a father," he cries "in strange perplexity" (158). Nelly reassures him that "all children love their parents," in an attempt to uphold the traditional structures of conventional family living. As they travel towards the Heights, Linton intuitively cues in to the hereditary economy of family living as he asks Nelly whether or not he resembles his father. This intuition is at first rewarded as Linton himself is examined by Joseph, Hareton and Heathcliff to determine who or what he is. Just as Heathcliff has been branded by Isabella as barely human, he claims his son only as "property", branding him with the same neuter pronoun that was first applied to him as an orphan from Liverpool. Joseph notes that Edgar has "swopped wi' ye, maister, an' yon's his lass" (160); this destabilizes Linton's identity and the family tree in several ways. First it implies that Linton is like his cousin Cathy, and in embodying her he is himself weak and effeminate. It also indicates that Linton has not inherited the Heathcliff family traits, but rather the Linton family traits; instead of his father's son, he is like his mother's daughter. On his part, Linton refuses to believe that "the grim, sneering stranger was his father" (160), even as Heathcliff declares that "Thou art thy mother's child, entirely! Where is *my* share in thee, puling chicken?" (160). Linton once again declares that he does not "know" his father in any way, while Heathcliff conflates biological heredity with economic inheritance as he declares Linton the new heir, "lord of their estates" (161). The question of environmental influence is key in this passage and in other passages concerning Linton. For Heathcliff, Isabella's traits dominate in Linton's character, but this *may* be only because he has been "raised on snails and milk" under Isabella's weak influence. The question will be whether Heathcliff's traits remain latent within

the boy, and whether he can call them forth by exposing him to cruel treatment. Indeed, Cathy later claims that Linton's "bad nature" is due to nothing other than his being Heathcliff's son (219).

Ultimately, this tangled web of biological inheritances becomes undone the moment Nelly reveals to herself at the novel's end – as she does in the beginning – that Heathcliff cannot and will never fit into the logic of inheritance. Heredity only makes sense in context; without origins, Heathcliff is literally monstrous: "But where did he come from," she asks herself, "the dark little thing, harboured by a good man to his bane?" (252). That Heathcliff's gravestone can only contain his single name, serving both as forename and surname in the absence of other information, as well as the date of his death, is perhaps more telling about those at the Heights than about Heathcliff himself. It is, after all, their text, and not his. Heathcliff has been denied the last name of his adoptive father (Earnshaw) as well as the requisite information about his wife and son, already in their graves. In the end, Heathcliff is neither folded into nor completely rejected from the family narrative. Perverse as it may perhaps seem, I think we can read Heathcliff's attempts to resist the sometimes totalizing logic of family dynasty as a kind of triumph. He has married into the family, and even bred. Although Cathy and Hareton marry and uphold the traditional family name at the novel's end, there is still a space for this non-member of the family, though that space is neither in this world nor outside of it. The novel forces us again and again into a narrativizing of family structure, but it also staunchly refuses to let us forget about that which resists that structure. Thus the novel itself performs a certain kind of reading and also forces the reader to perform this act of narrativization. By forcing us to think about how we arrange certain networks of identity based on hereditary information, and what we do with information that doesn't fit into this schema, *Wuthering Heights* performs its own

obsessions and also seems to promulgate them endlessly. In the concluding section of this chapter, I contextualize this close reading by pairing it with contemporary explanations of heredity that explore the early- to mid-century relationship between biological inheritance and environment, nature and nurture. In doing so, I will demonstrate that *Wuthering Heights* participates in this conversation in a particularly fruitful way, one that encourages the breakdown of a strict separation between these two categories.

III. Heathcliff as agent of Lamarckian permeable heredity

How does *Wuthering Heights* define the family unit? Does the novel's ending, in which the branches of the family tree are neatly tied back, together with the death of Heathcliff and the marriage of Hareton and Cathy, indicate that the novel advocates for an utterly legible, organized system of heredity – or, as so many critics have argued, is it simply too difficult to ignore Heathcliff as the monstrous other who must be done away with in order to restore peace?²⁰ And how does the role of the house, established in the previous section, help to shape the answers to these questions? Ultimately, is the logic of the family tree totalizing, and what happens to those boundaries of personal and family identity threatened at the thresholds of the house? In this last section, I turn to contemporary debates about the role of environment in determining (heritable) character traits and about the nature of taxonomic systems in order to help shed light on these questions. I return to my introductory claim that gothic conventions make us hyper-aware of the family tree and the anomalies within it – that the uncanny network of family resemblances and the enclosed domestic spaces of the Gothic bring the skeletons in the (genetic) closet forth. By focusing first on the biological implications of a permeable family network, and then on Heathcliff's role as agent of permeability, I argue that *Wuthering Heights* enacts a critique of the

biological family that is not only social, as in the tendency to narrativize family structures that may or may not exist, but biological as well.

At the turn of the nineteenth century, natural historians were already deeply embroiled in a debate about how biological inheritance functioned in human populations. Jean Baptiste Lamarck, best known for his advancement of the theory of “soft heredity,” claimed in his *Philosophie Zoologique* (1809) that characteristics acquired environmentally by parent organisms may be passed down biologically to future generations. Darwin-centric narratives from our own histories of science tend to dismiss Lamarck (if they consider him at all) as an early progenitor of evolution who happened to get the mechanism wrong (much as Darwin is considered an early theorist of genetics who simply came up with the wrong theory). Peter Bowler’s comment that “The whole history of the subject is reduced to a catalogue of great discoveries, with a series of footnotes giving credit to those who almost got there but didn’t quite make it” remains true several decades on in spite of a growing catalogue of thinkers willing to write outside the Darwin box (*Mendelian Revolution* 22). However, Lamarck’s theories of evolution and heredity, besides helping to pave the way for *The Origin of Species*, made a key contribution to early nineteenth-century philosophy in their own right. Lamarck provides one side of the cultural and philosophical debates against which I want to read the novel’s take on heredity and inheritance in this final section. Though he acknowledges that “every individual possessing life always resembles very closely those from which it sprang” (35), the question of how a particular (animal or plant) species has changed over time was very much a combination of what we would now call nature and nurture.

Less interested in the specific mechanisms of human reproduction than in the broader spectrum of species change over a longer period of time, Lamarck stressed the importance of

affinities between living organisms. “[Affinities] indicate a sort of kinship between the living bodies which exhibit them; and oblige us in our classification to place these bodies in a proximity proportional to their affinities. (29) [...] It has indeed long been observed that collections of individuals exist which resemble one another in their organization and in the sum total of their parts, and which have kept in the same condition from generation to generation, ever since they have been known” (36). This collection has become known to naturalists as a *species*, a term rejected by Lamarck (and eventually by Darwin, as noted in the introduction) as too transitory. Thus Lamarck positions himself squarely between an eighteenth-century notion of visible taxonomies and the nineteenth century tendency to question those taxonomies. For Lamarck, external resemblance is a sign, indeed the controlling factor, of biological interconnectedness, but he also problematizes the notion of a bounded set of relationships. Rather, he argues, external environment has the power to shift the resemblance or affinity between organisms, therefore shifting the shape of the species as a whole:

“According as the productions of nature are collected and our museums grow richer, we see nearly all the gaps filled up and the lines of demarcation effaced. We find ourselves reduced to an arbitrary decision which sometimes leads us to take the smallest differences of varieties and erect them into what we call species [...] Let me repeat that the richer our collections grow, the more proofs do we find that everything is more or less merged into everything else, that noticeable differences disappear, and that nature usually leaves us nothing but minute, nay puerile, details on which to found our distinctions.” (37)

Lamarck is quick to dispel the more traditional vision of a Chain of Being by emphasizing that whatever “lines” seem to appear are only those created by the limitations of human vision and

human imagination – species are not a “simple series, regularly graded throughout” but rather a “branching series, irregularly graded and free from discontinuity” (37). Only after large spaces of time, from a suprahuman perspective, do patterns emerge that make relationships clear in any meaningful way.

Lamarck uses the language of affinity to debunk each of the divisions in use in the animal kingdom, including classes, orders, families and genera (20). I would not argue that he was necessarily thinking of *human* families as one of these “artificial devices” – the context clearly demands that we read it in its biological sense – but the connection produces interesting consequences for a discussion of *Wuthering Heights* and the role of the human family in the nineteenth-century novel. “However natural families may be,” says Lamarck, “and however well constituted their genera are according to their true affinities, the boundaries of these families are always artificial” (24). The point at which one family ends and another begins, in other words, is never clear. Even affinities only help the natural historian to classify for human purposes. The process leaves too many unknowns and too much gray area to be able to classify anything with certainty. And yet Lamarck is certainly not anti-system: without organizing principles, scientists would be unable to communicate with each other, and it would be useless to gather material in hopes of discovering new links between affinities. *Wuthering Heights* replicates Lamarck’s dilemma: we cannot escape systems of classification and order, even while we recognize that the borders and boundaries we (over-)determine for ourselves are, in fact, artificial and at times harmful. Lamarck’s claim that “[W]e may be sure that this appearance of stability of the things in nature will by the vulgar always be taken for reality; because people in general judge everything with reference to themselves” applies equally to the novel and to the scientific dilemma surrounding classification (42). The family is a convenient and necessary construct –

but it is also a fuzzy one, and the thought that the Earnshaws could share any kind of affinity or kinship with Heathcliff, the outsider who challenges their “natural” stability, is both horrifying and alluring.

Lamarck’s fairly radical materialism further deconstructs the concept of a tidy, naturally-determined family unit: the doctrine of the inheritance of acquired characteristics relies on the role of one’s environment or material conditions as a stimulus for change. Though human perception may not be broad enough to recognize these changes, a shift in an organism’s environment sets off a chain of events that results in physical mutation of the individual, which is then passed on hereditarily to future offspring: with changes in environment come new needs; new needs cause the individual to take new actions; repetition of new actions leads to new habits; and eventually, a new habit leads to physical change (107). In other words, “Habits form a second nature” (114). For Lamarck, the “physical” is inseparable from the “moral”: even the most human virtues, emotion and feeling, are produced by physiological stimuli resulting from a changed environment at some point in the organism’s genetic history (10). In *An Essay on the Principle of Population* (1798), Thomas Malthus applies a similar formula even more explicitly to humans, though he also mocks Lamarckian soft heredity. Malthus took the fixed laws of science and, like Herbert Spencer would do with Darwin’s theory half a century later, applied them to human society. He prefigures Lamarck’s point about upholding the fundamental but artificial order within the system of nature as well as, to a certain extent, his theories about the importance of environment. But whereas Lamarck finds the power of environment to change and mutate an individual (and thus a species) to be liberating, Malthus contends that the same combination of environment and biology is what keeps humans locked into a particular class: “The constancy of the laws of nature, or the certainty with which we may expect the same effect

from the same causes, is the foundation of the faculty of reason” (146). For a poor farmer, says Malthus, the body always limits potential; pure hunger – a condition of environment – eventually stimulates the capacity for human reason, but the effects can only go so far in classes which have not been bred to do more than till the land.

While Malthus and Lamarck tentatively find common ground in terms of the roles of adaptation and environment on a species, Malthus’s earlier treatise is both more conservative, in that it uses habitat to enforce social standing, and more radical, in that it definitively applies theories of natural history to human populations. *Wuthering Heights* is a novel about precisely this philosophical and scientific conflict; it is a clash between family and individual, between a totalizing system and the personal identities it threatens to consume. Heathcliff himself dramatizes the clash between the two theories: if we read him as standing in for the environmental influence upon biological systems, the question becomes whether he enacts the possibility of a system open to change, or whether he simply locks in the long-established roles of an ancient family system. I will argue in the concluding pages of this chapter that although the novel’s conservative ending and the banishment of Heathcliff from the family tree seems to indicate the latter, Brontë nonetheless dwells on these radical challenges to social structures in order to suggest the former.

How we read Heathcliff depends very much on where he came from. Throughout much of the novel, it seems that each of the characters longs to know Heathcliff’s origin except for Heathcliff himself. Amidst all the references to Heathcliff’s gypsy blood and unknown past, there is only one scene in which Heathcliff himself confronts the questions of his origins directly. Nelly Dean draws the young boy Heathcliff in front of a mirror early on the novel in order to “read” his past and his future by looking at his reflection: “Come to the glass,” she says, “and I’ll

let you see what you should wish” (45). Though he looks disagreeable, she tells him, his expression is yet changeable: he can either retain his look of a “vicious cur” or else remain open to the world. Of course, her speech is ambiguous, as Heathcliff’s second disappearance shortly thereafter emphasizes. For Nelly, changing one’s physiognomy is not only possible but a way to change one’s mental and moral essence. If Heathcliff would only “learn to smooth away the surly wrinkles, to raise [his] lids frankly, and change the fiends to confident, innocent angels,” then his nature will change accordingly; he will not only *look* innocent, “suspecting and doubting nothing, and always seeing friends where they are not sure of foes,” but he will also truly *be* innocent. Though as narrator Nelly restricts our access to Heathcliff’s thoughts, his consequent actions indicate that his interpretation of her words is far different. For Heathcliff, *looking* is not necessarily the same as *being*. He can look innocent but still think shielded devious thoughts. This separation of internal and external helps to define Heathcliff’s attitudes on the cruelty of his world: Linton, Cathy and Hareton may all share physical features of Catherine, but Heathcliff is nonetheless denied access to Catherine herself – except through a complete stranger who meets her in a dream.

Similarly, Nelly offers the tantalizing possibility of changing one’s past simply by reimagining it, though again Heathcliff has his own interpretation of her words. “You’re fit for a prince in disguise,” Nelly flatters Heathcliff, continuing that

“Who knows but your father was Emperor of China, and your mother an Indian queen, each of them able to buy up, with one week’s income, Wuthering Heights and Thrushcross Grange together? And you were kidnapped by wicked sailors, and brought to England. Were I in your place, I would frame high notions of my

birth; and the thought of what I was should give me courage and dignity to support the oppressions of a little farmer!” (45)

Though Nelly then writes this conversation off as “chatter[ing] on,” the fairy stories a nurse might tell to keep a child occupied, she is keenly aware of the economic and social realities of lineage and just as keenly willing to transgress them, given her early and continued efforts to imagine herself as one of the Earnshaw family, both parent and sister to Catherine the elder and to Hindley.²¹ And certainly it is no coincidence that it is just at this moment that she and Heathcliff are placed quite literally on the thresholds of the house in time to observe Edgar and Isabella Linton “descend from the family carriage, smothered in cloaks and furs” (45). This carriage stands in for the trappings of what neither Nelly, who projects herself into the Earnshaw family in spite of her often poor treatment as a servant, nor Heathcliff, whose visual difference is stamped indelibly on his body, can hope to achieve. Nelly is willing to imagine a past that she knows cannot come to light, but she also acknowledges that Heathcliff – or, by implication, herself – could indeed carry royal blood, buried somewhere deep beneath their subpar social standings.

Since the Lintons’ arrival cuts short any verbal response from Heathcliff, we must take Nelly’s word that he has accepted her revisionist version of the past. But Heathcliff’s disappearance and reappearance in Chapter Ten seem to tell a somewhat different story. The reader, like the characters in the novel, never finds out where Heathcliff has been for those three years. We know only that he is “transformed:” when he reappears he is “tall, athletic, well-formed;” his “countenance was much older in expression and decision of feature” than Edgar’s; and he has “retained no marks of former degradation” (75). Though Nelly is surprised by the change, she yet recognizes a “half-civilized ferocity” in Heathcliff’s eyes, suggesting that she

does distinguish, here at least, between surface and reality, or rather that when it comes to actually forgetting about an unsavory past and embracing a more promising one, the practice is harder than the idea. As in the earlier scene, though, Nelly does try to fill in the missing gap by suggesting that Heathcliff has been in the army, or has become educated, or a Christian (78-80). More significantly, only Nelly seems to react to the change in Heathcliff's appearance, though she acknowledges Edgar Linton's "surprise" (75). Nelly reports that Edgar "had sense to comprehend Heathcliff's disposition – to know that, though his exterior was altered, his mind was unchangeable, and unchanged" (79). Catherine, for her part, has no difficulty separating "character" from "personhood," declaring to Isabella that he is "an unreclaimed creature, without refinement, without cultivation; an arid wilderness of furze and whinstone" (80). In fact, Catherine's language here seems a direct refutation of Nelly's earlier daydreams: "Pray don't imagine that he conceals depths of benevolence and affection beneath a stern exterior!" she admonishes her sister. "He's not a rough diamond – a pearl-containing oyster of a rustic; he's a fierce, pitiless wolfish man" (81). At this moment in the novel, the point of reference that marks Heathcliff's origins seems to have shifted from the unknown – full of the possibility of hidden nobility – to his previous time at Wuthering Heights, in which he was servant-child, cur, gypsy. For Edgar, Catherine and even Nelly, despite her earlier willingness to embrace the possibility of the missing origin, this version of the past has marked Heathcliff so indelibly that he cannot hope to escape it. This is signaled by the fact that even the narrative cannot continue with Heathcliff to drive it forward; Nelly's tale elides most of the three-year period in which he was missing. By disappearing for three years, Heathcliff attempts to reenact his missing origins, gambling that his return as a relative stranger may allow him the same kind of flexibility suggested by Nelly in the first scene. Only Isabella seems willing to accept him as rebirthed; ultimately, the reactions from

Nelly, Edgar and Catherine ensure that Heathcliff cannot, in fact, rewrite his past as the earlier scene suggests any more than any other character can. His past has been subsumed into and consumed by *Wuthering Heights* and the Earnshaw family. Though he is not technically one of them, neither can he separate himself from them.

In order to understand Heathcliff's role in the family hereditary structure of the novel, it is helpful to imagine, like Lockwood, what a pedigree of the two families might look like. In doing so, we find that the structure depends on perspective and family affiliation – and that Heathcliff's form of destabilization works from within. He is an outside who worms his way seamlessly into our diagrams. On the one hand, a traditional pedigree of the Earnshaws might look almost perfectly symmetrical, with Mr. and Mrs. Earnshaw at the top, and three pairings (Hindley and Francis with Hareton; Catherine and Edgar with Cathy; Isabella and Heathcliff with Linton) underneath. In this version, Heathcliff blends into the Earnshaw family tree perfectly and completes its symmetry. He is, in this sense, the missing puzzle piece, the component necessary to complete the family. Each Earnshaw child marries and produces a single offspring in the third generation. Similarly, if we flip the Lintons to the dominant position at the top of the tree, thereby removing the Hindley-Frances-Hareton grouping from the picture, the tree also looks symmetrical: Edgar, Catherine and Cathy are connected to Heathcliff, Isabella and Linton at all every generational level (a sibling bond between Edgar and Isabella, a sibling/marriage bond between Catherine and Heathcliff, and a cousin/marriage bond between Cathy and Linton). Incest, which should disrupt the unity of the family tree, here becomes incorporated into its logic seamlessly, at least in part because the relationship is only culturally and not biologically incestuous (since of course Catherine and Heathcliff do not actually share the same blood).²² However, we are reminded again and again of Linton's weakness (see the

previous section for examples), and it seems to be this weakness which prevents a coupling that would be both biologically and (somewhat) culturally taboo: that of Cathy and Linton, whose potential offspring would be half of the Linton family, one quarter Earnshaw, and one quarter Heathcliff.²³ Importantly, the only survivor of this entire branch of the family is Cathy, who participates in another incestuous coupling with Hareton at the novel's end – this time without the possibility of Heathcliff's "gypsy" blood to diversify their unborn children. That is to say, the novel's ending rejects Heathcliff entirely from both the pedigree and from the hereditary future of the family. Any children produced by Cathy and Hareton would be half Earnshaw and half Linton; the properties would be reunited under the aegis of the presumed descendant of the sixteenth-century "Hareton" whose name is carved above the doorpost at the Heights. When read this way, Heathcliff simultaneously acts as an essential part of the family without whom the perfect symmetry of the pedigree would be incomplete, and as the very element which challenges the supposed normality of the rest of the family.²⁴

Upon examining these scenes, we come across another question that the tidy family trees above leave unresolved. Is it the house – or rather, the unhealthy domestic space created by generations of Earnshaws mistreating each other – that causes Heathcliff's monstrousness, or is Heathcliff himself the monstrosity who tears apart the Earnshaw and Linton families? Certainly the more traditional reading of the novel indicates that the answer is the latter, mostly because of the persistence of our training as readers to accept Nelly's authority as complete. And yet the conversation between Nelly and Heathcliff, and his subsequent disappearance and reinvention, give some credence to the idea of the former interpretation. Faced with a seemingly unresolvable dilemma of interpretation, critics have of course chosen sides or, like J. Hillis Miller argued in *Fiction and Repetition*, argued that "the text is over-rich" (52). Whereas Miller also stages his

reading of the novel in terms of Lockwood's attempts to make sense of the data before him, he ultimately argues that there is, in fact no solution to the question, no "center" to the text at all but only "peripheries" (thresholds): "Each character [...] seems to be an element in a system, defined by his or her place in the system, rather than a separate, unique person" (57). For Miller, individuality is forestalled entirely by the dominant logic of the family tree.

In the context of Lamarck's acquired traits and the materialism of environmental heredity, I would argue that it is the inexorable closing down of boundaries within the Earnshaw and Linton families that creates the gothic presence that is Heathcliff. One kind of threat to the integrity of the family structure is the malevolent outside force inserting itself, virus-like, into the family lineage – but this is far more akin to the conflict at the heart of Anne Brontë's *Tenant of Wildfell Hall*, which I will discuss in the next chapter. Rather, I want to suggest that in the end it is not Heathcliff who is monstrous in *Wuthering Heights* but the dominating, totalizing logic of the family itself. The house serves as a gothic site which chokes off outsiders, Lockwood and Heathcliff, or draws them hypnotically into the confines of the family, as in Lockwood's fantasies of marrying Cathy. It is a vortex, a storm pulling everything into its epicenter – but it is not the house itself which is monstrous, but its role as center of the domestic, keeper of the family. Heathcliff and Lockwood are far from passive victims themselves, but whereas in a "normal" world, their patriarchal urges to dominate and control the lineage would change the direction of the family tree, in this world they themselves become only the more vulnerable to its totalizing logic. That reviewers responded to *Wuthering Heights* by classing it as inseparable from its "sister" novels only underscores the novel's claim that, in this biological and social world at least, the family's bonds are iron-clad and nearly inescapable, except via death. Nonetheless, Heathcliff's spectral presence at the novel's end suggests that the gothic challenge

to hereditary logic which he represents has not been resolved. As we shall see in the following chapters, his specter and all it represents will continue to haunt the domestic novels of the nineteenth century, try as they might to bury it.

Chapter Two

Domesticating the Child:

Maternalist Responses to the Discourse of Breeding in *The Tenant of Wildfell Hall*

If *Wuthering Heights* suggested the tenuousness of family divisions, other texts during the first half of the nineteenth century were thinking on an even larger and more radical scale about the boundaries of taxonomy and the meaning of domesticity. In this chapter, I examine a rather different kind of domestication, one predicated on the often contested relationship not between family members but between one species and another. This chapter explores the implications of the assumption that humans followed the same natural laws as other types of organisms, a claim that might seem self-evident to a modern audience, but was the subject of intense debate at the turn of the nineteenth century, and the idea's translation into the realm of gothic fiction. In order to do so, I place Erasmus Darwin's *The Botanic Garden* (1791) and *The Temple of Nature* (1803) in conversation with Anne Brontë's *The Tenant of Wildfell Hall* (1848). The first half of the chapter will demonstrate how the Romantic and romanticized poetry of Erasmus Darwin and his contemporaries' approach to natural history bestowed human characteristics on plants in order to make their reproduction more comprehensible – and in the process created a scientific foundation for Victorian notions about patriarchal authority and activity within the process of reproduction itself. This section creates a scientific history of this kind of taxonomy, beginning with the mid-eighteenth-century work of Linnaeus but dwelling for the most part on the work of Darwin. Darwin and his contemporaries, I argue, drew metaphorical connections among plants, animals and humans in order to construct functional theories of human heredity, but nonetheless relied on a patriarchal social model in which men controlled

processes of breeding or “nurture” in order to dominate nature. However, Anne Brontë recasts these metaphors within the gothic mode in order to challenge the notion of male-dominated nature and carve out a space for women, particularly mothers, in controlling the natural order. Brontë uses the mother figure, like Emily Brontë used the figure of Heathcliff, to challenge the taxonomy constructed by naturalists. Brontë translates the “natural” taxonomies which were believed to determine the laws of heredity into the gothic trope of the woman mistreated and threatened by a domineering male figure. Instead of relying on the Romantic hero to rescue her, however, *Tenant*’s Helen weaves her own release through the biological and social fact of her motherhood. As in *Wuthering Heights*, however, and as in the traditional gothic narrative, the radical critique of species boundaries and gender roles is ultimately restricted and contained in the novel’s conclusion. Nonetheless, as we shall see in Chapter Four, the connection between motherhood, species boundaries and the gothic would remain alive and well throughout the century.

I. The Curiously Parallel Lives of Erasmus Darwin and Anne Brontë

Erasmus Darwin and Anne Brontë were born several generations apart; Darwin is usually considered a major influence on Romantic writers, and Brontë a lesser Victorian novelist. On the surface, they seem to share little in common. Darwin was a wealthy, influential scientist who was formally educated at Cambridge and Edinburgh.²⁵ His accomplishments include a translation of the scientific works of Swedish taxonomist Carl Linnaeus from Latin to English; he founded the Lichfield Botanical Society, and was a member of the Lunar Society of Birmingham, working with top philosophers, artists and naturalists of his day, including Josiah Wedgwood, Joseph Priestley, and James Watt.²⁶ He also watched his first wife die of alcoholism and openly took at least one mistress by whom he had two daughters, the “Misses Parker,” for whom he eventually

wrote a treatise on female education. Of course, Erasmus Darwin is best known today not for his own tremendous achievements but as the grandfather of Charles – even though the younger Darwin’s work was heavily influenced by the elder’s early theories of evolution and heredity.

Anne Brontë, on the other hand, was a provincial parson’s daughter in a small Yorkshire town. Like Erasmus Darwin, she dwells in the shadows of her more famous family members, sisters Emily and Charlotte. Unlike Darwin, Anne Brontë had little access to formal education, aside from lessons with her sisters at home and several years at the school where Charlotte taught. She did, however, have at her disposal her father’s rich library, including a number of contemporary philosophers and natural historians, along with the various circulating libraries in and around Keighley, neighbors’ and relatives’ personal libraries, and her father’s periodical subscriptions.²⁷ Far from wealthy, Brontë worked as a governess until forced to leave her position because of her brother’s drinking problem and scandalous affair with the mistress of the house.

In spite of the wide social differences between an educated man of the world and a small-town parson’s daughter, Darwin and Brontë shared a remarkable number of common interests and concerns. Darwin had to come to terms with his wife’s alcoholism and his own struggles with gout, often linked to alcohol consumption, while Brontë watched her brother Branwell self-destruct from the same disease; both were pro-temperance as a result. Both were very much interested in theories of education: Darwin at least in part because of the boom of late-century literature about education and because of his semi-acknowledged daughters’ boarding school, and Brontë as an educator and governess herself. Most importantly for this argument, both displayed a keen interest in natural history. Darwin’s legacy in this regard is his voluminous poetic works, including *The Botanic Garden* (1789-91), *Zoonomia* (1794), *Phytologia* (1800),

and *The Temple of Nature* (1803). The first and last of these lengthy works, which remain his best-known, were written in rhyming couplets accompanied by extensive prose footnotes. The tone of the former is heroic, a blend of mythology, religious imagery, and the idyllic scenes of earlier poets; in the latter, the tone shifts to that of a scientific and medical man in conversation with other learned readers. Though Brontë is usually considered the family's socially-conscious, hard-nosed realist, the family book collections reveal her hobby of recreating drawings from illustrated collections in her father's library – a hobby, I argue, that roots itself at the foundations of *Tenant*.²⁸ Stylistically and practically, these two figures perhaps could not have been further apart; certainly they do form a surprising pair. But their interests in natural history and their own personal connections to alcoholism lead to a mutual concern with questions of heredity, with clear references to the debate between nature and nurture that was beginning to take clear shape during the first half of the century.

After the publication of Thomas Malthus's *An Essay on the Principle of Population* in 1798, the debate about biological inheritance from parents to offspring began to coalesce ever more quickly. Malthus' tract is significant in many ways, not least of which is that it introduces the naturalists' notions of biological connectivity among plants, animals and humans to the realm of political economy. The essay uses a number of examples from the plant kingdom in particular in order to demonstrate that human populations follow the same fixed laws as plants and animals, and was one of the earliest works to suggest that "breeding" as such might be possible, though impractical, for humans: "It does not, however, by any means seem impossible that by an attention to breed, a certain degree of improvement, similar to that among animals, might take place among men. Whether intellect could be communicated may be a matter of doubt; but size, strength, beauty, complexion, and perhaps even longevity are in a degree transmissible" (72).

That he doubts the transmissibility of intellect only indicates that Malthus, like his contemporaries, left room for the role of education (formal and otherwise) in the development of individual capacities. Indeed, Malthus casts the French Revolution essentially as a large-scale experiment in human breeding, with disastrous results: Like a breeder who goes too far in attempting to perfect a plant and finds that “[b]y endeavouring to improve one quality, he may impair the beauty of another” and produce offspring with beautiful blossoms but a structural flaw, “the forcing manure used to bring about the French revolution, and to give a greater freedom and energy to the human mind, has burst the calyx of humanity, the restraining bond of all society [...] the whole is at present a loose, deformed, disjointed mass, without union, symmetry, or harmony of colouring” (112). The consequences of attempting to engineer any outcome in the human race other than the “natural” orders and hierarchies that placed the aristocracy over the bourgeoisie, men over women, adults over children, would result in “the bursting of the bonds of society” and “the most acute pain” for thousands (113). It is useful to bear in mind Malthus’ connections between socioeconomic and biological theory as we read the works of Erasmus Darwin, himself prone to social theorizing, and Brontë’s novel about the role of the aristocracy in the natural order.

By blurring the boundaries between sociopolitical and biological hierarchies, Malthus hearkens back to a Benthamite understanding of lineage. In *An Introduction to the Principles of Morals and Legislation* (1780), Bentham contends that “It is manifest that the stronger and more numerous a man’s connexions in the way of sympathy are, the stronger is the hold which the law has upon him. A wife and children are so many pledges a man gives to the world for his good behavior” (54). Neither “nature” nor “education” can function without the other; ultimately, “physical power” is the only way to determine the hierarchies of law (parent over child, man

over woman, master over servant) (259). In other words, Benthamite theories of law had already suggested a conflation between legal and natural (biological) identities and relationships; the authority of the law comes from its basis in biology. These works contributed to the major milestone in the popular debate over heredity during the first half of the century, Alexander Walker's *Intermarriage: Or the Mode in Which, and the Causes Why, Beauty, Health, and Intellect Result from Certain Unions, and Deformity, Disease and Insanity from Others* (1838 – of which more in Chapter Three). The premise of Walker's influential tract was that human breeding worked in ways similar to the breeding of plants and animals, and that the savvy, socially-conscious young person (or her parents) would think carefully about how to manage her lineage when choosing a mate. This backdrop helped to establish the early Victorian social order, including the power structures within the family unit and the very primacy of that unit as the center of morality. In this chapter, I will examine both the natural histories which lent their authority to these legal and economic theories and a challenge to those theories in novel form.

I use the term “nurture” in my readings of these writers as a particularly rich concept which allowed contemporary texts to cross the line between the discourses of motherhood and of agriculture in surprising and fruitful ways. In today's parlance, “nurture” has become shorthand for anything which shapes the individual's development into personhood externally, from outside the body.²⁹ I want to shift this definition slightly by placing “nurture” in its early nineteenth-century context. According to the OED, nurture is “The bringing up, rearing, or training of a person or animal, esp. a child; tutelage; care” or “the fact of having been brought up in a particular social environment (in later use esp. as a factor influencing or determining personality, as opposed to a person's innate characteristics)” (OED). Nurture has always been about “breeding:” figuratively, the process of rearing or educating something, but literally, to “foster”

or “cultivate” (OED). For its part, “cultivation” is only used in the sense of education figuratively; its literal meaning relates to the “the production or raising of a ‘crop’ of any kind” or to the medium in which that plant or animal species is actually raised (OED). Cultivation, like nurture, usually refers on some level to human effort as applied to, say, a field of crops or a herd of cattle. However, in many of these cases, this human labor is the process of breeding or of domestication over many generations of a single species or subspecies. To cultivate one’s mind is a metaphor of maturation over a single lifetime; to cultivate a plant, or a variety of a plant, is to breed it over many lifetimes, to monitor and interfere with the genetic processes that literally shape the internal and external characteristics of the species.

Two prominent critics of the history of heredity argue against locating the origins of modern heredity in the late eighteenth and early nineteenth centuries, as I do here. It is worth turning to their arguments before I begin my analysis of Darwin’s conclusions about reproduction and heredity to help establish why I find his work so important within the larger narrative of the history of heredity. First, Jenny Davidson’s work *Breeding: A Partial History of the Eighteenth Century* (2008), which connects the discourses of animal breeding and human heredity, underlies this chapter in a fundamental way, particularly her claim that “Breeding folds nature into culture in a way that might save one from having to choose between two competing and (it is possible) largely incompatible accounts of human nature” (1). Davidson reads the turn of the century as a turning point in the development of the emerging discipline of the study of heredity:

In general, it has to be said that the eighteenth century was a period of belief in environmental culture. Heredity – heredity as a *concept* – really came into its own during the nineteenth century, and even the terminology available to eighteenth-

century writers made it difficult to be precise about hereditary elements [...] the early years of the nineteenth century undoubtedly saw a move toward explaining visible differences [in sheep's fleece] by internal rather than external causes. (93)

Indeed, she continues, the late eighteenth century provided a number of social, economic and scientific influences which helped to shape late Romantic notions of heredity, including the study of embryology and the vogue for agricultural improvement, and theories of human progress (88). Nonetheless her claim that nature was thought to almost always trump nurture before the eighteenth century seems to be something of an exaggeration, according to the detailed work of Harriet Ritvo and Nicholas Russell, who painstakingly trace the process of providing pedigrees for farm animals.³⁰ Though the ideas of “prophets of the hereditary,” one-off visionaries who seemed to anticipate later theories, poke through the mist here and there, she says, this is a misreading of the general trend in period thinking; these ideas “sometimes hold more interest for modern readers than they did for contemporaries” (88). This project proposes that naturalists, novelists, and political economists were all engaged in a lively debate about the relationship between environment and heredity, between human and nonhuman. To dismiss early iterations of that debate is unproductive at best, harmful to our understanding of the culture at worst. Indeed, the reason this chapter splits between two texts separated by fifty years is to demonstrate the breadth of this conversation about breeding, the fact that it was a defining conversation of a long nineteenth century.

Similarly, Evelyn Fox Keller argues that scholarly attempts to locate the nature/nurture debate any earlier than the 1870s are misguided, that the separation of the two concepts could only come into being after Francis Galton espoused Charles Darwin's particulate theory of inheritance, which I will explore further in Chapter Three.³¹ However, this line of thinking

ignores abundant evidence, some of which I will present in the next section, that the debate between heredity and environment was alive and well long before the nineteenth, and even the eighteenth centuries. The texts I examine in this chapter bookend the lengthy period during which the literal and metaphoric usages of the term “nurture” came together, and the subsequent confusion between those two senses – of education (of the mind) and cultivation (of an organism) resulted in the very questions Brontë’s novel asks about education and innate traits. Reading *Tenant* against the discourse of eighteenth century naturalism and biology forces us to acknowledge that the conversation about the social implications of heredity was alive and well long before the moment of Darwinism and social Darwinism.

This chapter expands these histories to incorporate multiple disciplines, which allows us to recognize that breeding practices in the agricultural world also functioned as power practices in the gendered world of the human family. The aptly-titled realm of husbandry all too often removed the realm of reproduction from a gender-balanced world in which each sex contributes to the offspring and works to guarantee its survival, to one in which men alone become responsible for planting, harvesting and controlling the breeding process, asserting mastery over another species. By putting Brontë’s novel next to Darwin’s formulation of breeding practices, it will become clear that farmers like Brontë’s Gilbert Markham depended on reliable mechanisms of breeding for their economic well-being – but they also relied on women’s bodies and their possibilities for sexual reproduction for their emotional well-being and for the continuation of their lineage. An easy correlation between internal makeup and external traits meant that men need not rely on a woman’s word to determine paternity: but, as in the project’s introduction, a telltale misplaced nose or lack of resemblance could throw the entire system off balance. For scientists and farmers as for aristocrats in the family portrait hall, resemblance (as a marker or

guarantee of sexual fidelity) proved all too slippery; as Malthus noted, crossing for one characteristic often meant a change in a formerly stable trait – the blossom might bloom, but a burst calyx was of no use to a showman or a salesman. In spite of the attempts by Linnaeus to draw direct analogies between plant reproduction and animal (and therefore human reproduction), the world of plants remained more guarded, less obviously sexual, and therefore a powerful place to explore how environment and nature could *both* influence the makeup of internal and external characteristics.³² In the next section I shall argue that for Darwin and his contemporaries, plant reproduction put females into the mythologized role of nurturer but downplayed their efficacy as hereditary agents, a role Brontë would embrace in order to revise.

Using Darwinian conclusions about heritability and gender dynamics, the second half of this chapter reads *Tenant* against the backdrop of these natural histories, sources we can reasonably expect Brontë to have been familiar with.³³ There are two different models of patriarchal inheritance in the novel, I will argue, represented by the two male figures of authority, with young Arthur Huntingdon caught in the midst of these conflicting versions of heredity. His father (also called Arthur) represents the first model of inheritance: he is a degenerate aristocrat, a gambler and alcoholic determined to fritter away the fortunes of himself and his wife, Helen. Because Helen's father was also an alcoholic, she fears that her son may have inherited the tendency towards alcoholism from one or both sides of the family: she insists that "a child may be naturally prone to intemperance – by the fault of its parents or ancestors" (38). Thus she quite explicitly expresses a belief in the hereditary nature of character traits. However, isolation from what she variously terms the "contamination" and the "taint" of her son's father, along with re-education provided by the mother, can prevent young Arthur from succumbing to his taint, or as we might phrase it today, from those genes becoming activated. In

an attempt to take control and redirect Arthur's faulty genetic makeup, she kidnaps him and flees to her parents' former home. There she meets Gilbert Markham, the third point in the triangle and the son of a "gentleman farmer" (his words) who is fascinated by Helen and determined to discover her history. The other model of patriarchal inheritance, which Gilbert represents, is tied to the land, both in the legal sense and in the farmer's duty to breed crops and animals efficiently and effectively. In the first chapter, Gilbert notes that

My mother had done her utmost to persuade me that I was capable of great achievements; but my father, who thought ambition was the surest road to ruin, and change but another word for destruction, [...] exhorted me, with his dying breath, to continue in the good old way, to follow his steps, and those of his father before him, and let me highest ambition be, [...] to transmit the paternal acres to my children in, at least, as flourishing a condition as he left them to me. (10)

His mandate is twofold: both transmission (of land, but also of a way of life, a system of values) and husbandry. Huntingdon inherits property in the form of money, while Gilbert inherits actual land, but both of these characters work within the system of male-dominated inheritance laws – and in both cases, the economic inheritance of property becomes inseparable from the biological inheritance of particular traits. Just as in the female Gothic, the narrative thus becomes a struggle between these two modes of patriarchal inheritance based on the precedent set by writers like Bentham and Malthus. Helen attempts to resist both via the properly female occupations of education and nurturing – what I will call a "maternalist" model of heredity, a model which reads the biological and cultural connection between the mother and her offspring as potentially more powerful than the masculinist models described above.

By placing Erasmus Darwin's *The Botanic Garden* and *The Temple of Nature* in conversation with Anne Brontë's *The Tenant of Wildfell Hall*, I will argue that *Tenant* revises popular notions of heredity from the perspective of the woman and of the mother: by reconfiguring the supposedly natural connections between patriarchal inheritance of the land on the one hand and biological traits on the other, and by reclaiming and reinscribing popular metaphors of breeding, Anne Brontë's female protagonist creates and attempts to implement a maternalist version of heredity. Whereas the Romantic and romanticized poetry of Erasmus Darwin and his contemporaries' approach to natural history bestowed human characteristics on plants in order to make their reproduction more comprehensible, *The Tenant of Wildfell Hall* does the opposite. Darwin's anthropomorphizing of plants aids him in convincing readers of the biological status of human nature, but Brontë's metaphoric reversal – imagining humans as plants – pushes Darwin's meditations toward a much more frightening set of questions about the fragility of a society defined by tenuous pairings and the continuous struggle for healthy environments born upon the backs of women. Because there is no satisfactory framework in place to express the anxieties surrounding human heredity, Brontë turns the tables on the metaphor and applies the language of breeding and agriculture to a human child. In doing so, she creates a version of heredity based on maternal strength and power rather than one predicated upon patriarchal structures of kinship and economic inheritance.

II. Darwinian geometries: On parental contributions to offspring and the 'golden chains' of society

Late Romantic and early Victorian thinkers often relied on models for biological inheritance established decades prior. This is not to say, however, that debates on mechanisms of heredity were not alive and well; indeed, the lack of solid evidence or even a single dominant

theory is part of what made questions of identity and character so alluring - and frustrating - to nineteenth-century novelists. Certainly the early eighteenth-century works of Carl von Linnaeus, translated for an English audience by Erasmus Darwin and the Lichfield society in 1783, would have formed an important and still much-respected component of a naturalists' thinking about heritability at the turn of the century; thus I begin this section, in large part about Darwin's original works, with a brief explanation of Linnaeus' effect on taxonomy at large and on the fissures in those early taxonomies, the sites ripe for gothic reimaginings. Linnaeus's innovation of binomial nomenclature, still in use today, implies a dry and almost obsessively ordered mind. After all, a modern reader might conclude, a man who has the patience and the resources to classify several thousand species on multiple levels must have a serious investment with order and organization. Though written in Latin, Linnaeus's *Philosophia Botanica* (1751) reveals that he wrote to entertain – and titillate – as much as to instruct. The wide realm of nature, Linnaeus stresses, can certainly be reduced to the level of the human mind, and the educated layperson or student of botany can follow his system, and perhaps even add to it, easily. Linnaeus, like Bentham and Malthus after him, claimed that his methods were *natural* and not artificial; he was simply uncovering a (divinely created) system that has already been laid out for the scientist in logical ways: “The fragments of the NATURAL METHOD are to be sought out studiously,” he writes. “This is the beginning and the end of what is needed in botany. Nature does not make leaps. All plants exhibit their contiguities on either side, like territories on a geographical map” (40). Our knowledge, then, is incomplete, but we can rest assured that a system does exist, and the best way to uncover and analyze that system is to read it in terms of what we know best; that is, the human body. By anthropomorphizing things like vegetables, and by giving them agency, Linnaeus creates a predictable and controllable version of nature.

But perhaps the most curious thing about Linnaeus's system, besides its occasional tongue-in-cheek humor (i.e. creating a category called "the taxonomists [who] have determined the truly proper names for genera and species" and then listing only himself in that category [26]), is its sheer raciness. As Londa Schiebinger notes, Linnaeus "brought traditional notions of gender hierarchy whole cloth into science. He read nature through the lens of social relations in such a way that the new language of botany incorporated fundamental aspects of the social world as much as those of the natural world" (17).³⁴ Surely the Victorians would have censored Linnaeus's work had he composed it during the nineteenth century, as he delighted in carrying his anthropomorphized descriptions just beyond the realm of propriety, but I want to propose Linnaeus here as a predecessor whose work is vital to an understanding of Darwin's theories at the turn of the century. Amy King argues that, in a way, the Victorians did just that: "[Linnaeus'] classificatory method terms the sexual reproduction of a flower *marriage*, a terminology that makes a horticultural fact a human fact, and by extension a human act (marriage) a horticultural, 'natural' act (blooming)" (4). In other words, Linnaeus' sexualization of flowers would become shorthand for the sexual nature of young women during courtship.³⁵ The tract's sexual playfulness is most evident in his descriptions of plants' sex and reproduction. Challenging his audiences to consider the fact that the sexual reproduction of plants is, after all, not so different from the sexual reproduction of humans both allows for imaginative linkages in the chain of being and relegates those linkages to the realm of the humorous. In the most blatant of these comparisons, Linnaeus compares the two sex processes:

Therefore the CALYX is the *bedroom*, the COROLLA is the *curtain*, the FILAMENTS are the *spermatic vessels*, the ANTHERS are the *testicles*, the POLLEN is the *sperm*, the STIGMA is the *vulva*, the STYLE is the *vagina*, the

[VEGETABLE] OVARY is the *[animal] ovary*, the PERICARP is the *fertilized ovary*, and the SEED is the *egg*. (105)

In case his point was somehow lost, Linnaeus follows the statement with a reiteration of most of these formulations, but this time adds that the calyx “could also be regarded as the *lips of the cunt* or the *foreskin*” (105). For a reader expecting dry lists of Latin names and categories, this blunt categorization comes as something of a shock. To compare a seed to an egg is one thing, after all; to compare either of those to corresponding sexual organs of the human male and female is perhaps more shocking; but to imagine the sex act as fully as he does here – down to the bedroom and the curtain – is fairly scandalous. (Indeed, Darwin’s reconfiguration of Linnaeus actually recasts his work as quite a bit tamer than the original: tales of harems and coquettes could be cast as exotic but still appropriate for young female readers – though he admits, in *A plan for the conduct of female education in boarding schools* [1797], that perhaps parts of *The Botanic Garden* may not be suitable for young women after all.³⁶) Thus Linnaeus moves beyond bringing the domestic(ated) space of the garden into the male-dominated realm of science. He intrudes into that most private of private spaces in the home, the bedroom and even the bedcurtains; and then he penetrates one step further into the very vagina of the unnamed plant he examines, and he invites his male readers to join him for a look. If the world is divided into separate spheres, both of those spheres come under the protective gaze of the gardener but also the salacious gaze of the dominant male. In Linnaeus’ taxonomy, the gardener and the naturalist alike occupy a position of privilege over the natural world: theirs is to watch, to observe, to peer into nooks and crannies with any instruments at their disposal. As we shall see, this male-dominated prototype would remain alive and well for at least another century.

When it came to human reproduction, however, the idyllic and eroticized system of Linnaean observation found itself on far shakier ground. Previous natural historians had developed theories that never seemed to fit the data. For example, preformationists of the early century believed that the fertilized (and for some, the unfertilized) embryo already contained all the information for the individual in miniature; development (also called, confusingly, “evolution”) was simply a process of unfolding and/or expansion. As Georges Louis le Clerc Buffon noted, this theory assumes an infinite progression all the way back through history – since an embryo would also have to contain any future children it might bear – and wouldn’t allow for the possibility of change or improvement of the human race (Vol II, 26). Rather, Buffon argued, living matter contains tiny organic particles which are never fully destroyed. Epigenesists, on the other hand, believed that as the embryo developed during its gestation, it passed through stages resembling the less complicated species on the chain of being to achieve, in the end, the more technically complicated status of the human. A heritable system with contributions from both parents could not be logically possible without the basis of epigenetic thought, a claim Erasmus Darwin would still be attempting to prove fifty years later.

A passage from Buffon’s 1749 *Histoire Naturelle* encapsulates an attitude that would remain more or less prevalent among natural historians for the next century at least and is thus worth citing at length:

But the strongest proof of the truth of our present doctrine arises from the resemblance of children to their parents. Sons, in general, resemble their fathers more than their mothers, and daughters have a greater resemblance to their mothers than their fathers; because, with regard to the general habit of body, a

man resembles a man more than a woman, and a woman resembles a woman
more than a man. (Vol. II, 59)

So far, Buffon's analysis differs little from that of his contemporaries. He recognizes that there must be some kind of system through which parents pass down traits to the next generation and searches for general principles to describe that system. These principles do exist, he argues, but only "in general;" whether the mechanism of inheritance is connected specifically to gender, or whether that gender-aligned set of resemblances is merely structural or habitual is left open. That it is only "the general habit of body" that perfects the analogy seems a curiously vague statement, one which Buffon does not correct elsewhere in the *Histoire*. Whether "habit" implies individual agency, environmental stimulus, or simply the loosest of analogies – male to male and female to female – the system remains fairly open-ended. He continues,

But, as to particular features or habits, children sometimes resemble the father, sometimes the mother, and sometimes both. A child, for example, will have the eyes of the father, and the mouth of the mother, or the colour of the mother, and the stature of the father. Of such phenomena it is impossible to give any explication, unless we admit that both parents have contributed to the formation of the child, and, consequently, that there has been a mixture of two seminal fluids. (59)

Whereas bodily structure is easily traceable and always follows a predictable set of laws, the origins of "particular features or traits" are far more difficult to determine. Visible resemblance is our only indicator of the source for a physical feature – eyes, for example, or height, or coloring. Buffon limits his examples of these traits to those which are empirically observable (though not necessarily measurable); moral traits – virtues or vices, habits, tendencies towards

particular behaviors – do not seem to fall under the aegis of the heritable. Ultimately, he must admit that a systemic explanation of patterns of resemblance and inheritance continues to elude him:

These resemblances long embarrassed me, and till I had maturely considered the subject of generation, led me into many errors and prejudices: And it was not without much thought, a minute examination of a great number of families, and a multiplicity of evidence, that I could prevail on myself to alter my former opinion, and to embrace what I now believe to be truth. But the objections which might occur concerning mulattoes, mongrels, mules, and particular parental resemblances, instead of opposing my theory, I despair not of being able to show that they bestow on it an additional strength. (59-60)

That Buffon should be *embarrassed* by his own incomprehension of the laws of inheritance is telling and indicates the surfacing once more of the gothic taxonomies surrounding heredity, an attitude that, as we have seen, would prevail long after his work was translated and disseminated across Europe. Overall, and in spite of individual cases which seem to disprove the law, physical features are heritable and both parents contribute to the makeup of the offspring. Indeed, Buffon posited that each sex has a “seminal fluid” of some kind, and the mixing of these fluids gives rise to the sexual animal being.³⁷ Buffon is certain that some kind of higher law does govern heritability, even in those cases, like “mulattoes, mongrels, [and] mules” which seem not to fit the data. Thus this passage gestures towards the problems inherent in thinking about heredity in terms of gothic taxonomies, of a logic that resists either/or. Exactly how to go about reconciling the empirical evidence of hybridity with the equally compelling evidence of visible family resemblance posed a problem that flummoxed naturalists far less accomplished than

Buffon. Buffon's embarrassment also gestures towards a scientific frustration with that which cannot be mapped, that which refuses a logical schema – or at least a visible schema. To a twenty-first century reader accustomed to the sterility of scientific discourse, Buffon's rhetoric may come as a surprise. Even the encyclopedists of the eighteenth century, however, understood that beneath the mobility of objective truth stood a dignified observer whose emotional response to the subject mattered. We might liken Buffon's "embarrassment" here to a much larger moment of discovery, of grappling with this gothic taxonomy: the undoing of that which Foucault calls "signatures" or "buried similitudes," "the network of signs that crosses the world from one end to another" (*The Order of Things* 29). Of course, parent/child resemblance has always been a source of potential embarrassment and failed paternity. If a son fails to look enough like his father, the unspoken shadow of unfaithfulness and cuckoldry may follow father and son throughout their lives. In this passage, Buffon is in a sense cuckolded not by a woman but by his own impotence as a rational man of science, his inability to systematize that which seems to contradict the Romantic belief in the fixed laws of nature. That he turns to the "monstrous" hybridities of miscegenation to justify his unwonted display of emotion indicates its taboo nature as that which should remain unspoken and outside the boundaries of scientific discourse and positions heredity itself as a gothic trope, as we shall see in the second half of the chapter.

Outside the physiological logic of resemblance, many theorists found that environmental factors still had a role to play in theories of embryonic development. The fetus in embryo was thought to be susceptible to any number of influences during gestation, including the emotions or sensations of the mother.³⁸ Lamarck's theory of the heredity of acquired characteristics would add a decisive shift in thinking about identity and genetics in that it suggested the possibility of

heritable changes *outside* the womb, once the embryo had become a person at any stage of growth or development: for Lamarck, habit sometimes but not always resulted in changes to the offspring of the individual.³⁹ Beyond these conversations about the embryo and fertilization, it was far more typical for naturalists in turn of the century Europe to think about heredity in terms of plants and animals rather than in terms of the human, in no small part because so much more was known about systems of breeding. Like that of Gilbert Markham, the economic livelihood of a nation of farmers depended upon a more or less accurate way to predict traits produced by crossing varieties of stock or crops. As Nicholas Russell notes, “The inheritance of complex physiological characters in animals is very difficult to analyse and is almost infinitely susceptible to environmental modifications which obscure underlying hereditary pattern and led many breeders to suppose that inheritance played little part in the production of superior stock. This confusion between the inherited and the environmentally contributed worth of an animal has always made breeding a tricky procedure” (11). Russell argues that breeders downplayed the role of heredity in favor of environment, which was both more easily controlled and easier to predict. That there was a hereditary factor in breeding, however, and that farmers recognized the importance of this factor, is undeniable – else why the abundance of siring charts popular among breeders of cattle, sheep and horses. The key difference is that it was more difficult to “see” the direct hereditary line of a particular plant, whereas the sexual processes of animal reproduction were far more akin to those of humans – hence the highly romanticized and fanciful descriptions of plant reproduction described by naturalists like Erasmus Darwin. In the rest of this section, I read the linkage among plant, animal and human as part of Darwin’s inheritance of an Enlightenment taxonomy of linkages across species lines, with man at the pinnacle of the breeding system. I argue that Darwin upholds the earlier male-dominated version of breeding,

but uses the logic of sexual reproduction to introduce woman to the system as nurture to male nature. His version of mothering is an important predecessor for Victorian theories of woman's purifying role in the household and the justification for keeping her there.

Though critics have focused mainly on Erasmus Darwin's *The Loves of the Plants* (1789), I will focus instead on two of his lesser-known works, poetic-scientific pieces in which he explicitly connects the plant and animal world to that of human society: the first part of *The Botanic Garden*, "The Economy of Vegetation," and *The Temple of Nature: Or, the Origin of Society*. Darwin's work comprises a masterly synthesis of contemporary scientific research and whimsy. Not only does Darwin help his readers to link allegory and naturalism, but also the Linnaean kingdoms of animal, plant and human organisms. A contemporary review complained that "instead of copying from the great volume of Nature which now lies open to our view" (or rather, instead of keeping to strictly empirical observations), "he fondly attempts to penetrate the veil which must forever conceal her mysteries from mortal eye, and affects to disclose, with all the confidence of an observer, an imaginary order and progress of things, from sluggish and unorganized matter, upwards, into living, intelligent, and moral existence" (492).⁴⁰ To paint fanciful pictures of flowers as upper-class ladies, as he does in "The Loves of the Plants," is one thing – but to claim factual connections outside the realm of metaphor between asexual creatures and humans is distinctly more uncomfortable.

Darwin constantly moves between the world of fantasy and that of empiricism based on anecdotal and experimental evidence, but makes clear in the Advertisement and Apology at the start of *The Botanic Garden* the direct connection between allegory and science. Famously, he begins by claiming that his purpose is to "inlist [sic] Imagination under the banner of Science; and to lead her votaries from the looser analogies, which dress out the imagery of poetry, to the

stricter ones, which form the ratiocination of philosophy” (v). The seemingly unscientific use of mythology, the framework of Rosicrucian gnomes and sylphs throughout the work, is pleasurable but also leads the learned reader through classical terrain into territory that might be less familiar. Not only is this a useful teaching method, Darwin’s introductory material says, but it also tells us something about the origin of those myths.⁴¹ The human grasp of the natural world is instinctual and intuitive – and even the highest cultural achievements of the human race are nonetheless rooted in human interaction with environment.

Like his predecessors, Darwin relied extensively on metaphors about and descriptions of the birth process and embryology to describe the birth of the world. The mythical-allegorical Egg of Night, from which is born the universe, is similar in purpose and design to the seeds borne of plant species:

Count with nice eye the myriad SEEDS, that swell
Each vaulted womb of husk, or pod, or shell;
Feed with sweet juices, clothe with downy hair,
Or hang, inshrined, their little orbs in air. (IV.355-8)

Plants, as Darwin never seems to tire of reminding his readers, pattern the known world; they also give birth, feed and clothe their young – and, in an earlier work, we learn that plants even have ideas.⁴² Though he imagines the plant world as a highly sexual one charged with the gendered and suggestive language of pregnancy (“vaulted womb”) and sensuality (“sweet juices,” “downy hair”), the reality, particularly in this first half of the poem, is far more gruesome than that of the visions of courtly dancing couples in the poem’s second half, and more akin to the “eat or be eaten!” version of nature Darwin had described in *Phytologia*.⁴³ Our understanding of nature relies on our ability to read ourselves – our habits, our bodies, our

predispositions – onto it, but this also means that the human is perhaps too close for comfort to the animality and prodigality of the natural condition. In his most mature work, Darwin claims that what really separates humans from our animal and botanical cousins is, so to speak, our roots: a biological, not analogical, connection.

In *The Botanic Garden*, Darwin imagines the embryological development – of plants, at least – to be preformationist rather than epigenetic.

Lo! On each SEED within its slender rind

Life's golden threads in endless circles wind;

Maze within maze the lucid webs are roll'd,

And, as they burst, the living flame unfold. (IV.381-4)

Seeds contain the webs of “life's golden threads,” the filaments that connect matter with matter but also generation with generation. So too does the acorn contain the oak tree in miniature:

Each ravel'd bud, fine film, and fibre-line

Traced with nice pencil on the small design [...]

Grain within grain successive harvests dwell,

And boundless forests slumber in a shell [...]

The GREAT SEED evolves, disclosing ALL. (IV.387-8, 393-4, 406)

Darwin's nature, though not at all akin to the natural theological universe of William Paley, nonetheless extols the wonders of design. But Darwin's wonder, miraculous as it may be, is not a mystery denied to the human intellect: rather it is to be solved empirically, by observing the biological processes of preformation. The footnote for this passage, citing such authorities as Mariotte, DuHamel, Leuenhook, Baker, Bonnet and Haller, indicates that this process of “evolution” (the eighteenth-century term for preformation, literally an unfolding of a preformed

organism) is indeed a literal process – and not only that, but one that is directly analogous to the similar process in animal reproduction (191-2). A later footnote on “Vegetable Impregnation,” however, seems to contradict this in favor of a view more traditionally associated with epigenesis. Citing a study by Spalanzani on the properties of semen in dogs and frogs, Darwin notes that the “prolific quality” of seminal fluid is either “a stimulus exciting the egg into animal action” (also called a “vivifying principle”) or else “part of it [may] be actually conjoined with the egg,” but that “the frequent resemblance of the fetus to the male parent” means that the latter is more likely true, or rather, that both parents contribute matter to the embryo – making pure preformationism logically impossible. He continues, “A conjunction however of both the male and female influence seems necessary for the purpose of reproduction throughout all organized nature,” both plants and animals (footnote XXXVIII). Whereas Buffon had imagined the “organic particles” of male and female seminal fluids uniting with the most plentiful particle to determine the sex of the offspring, Darwin theorized that each parent had a particular role to play in the process of reproduction: from the male, the “speck of animation” in the egg or the “heart” of the seed, and from the female, the “nidus” or “nest for reception,” and the “nutritive material” from the womb (*Phytologia* 19). (Later, Alexander Walker would also insist that each parent plays a particular and definitive role in the shaping of offspring.) This narrative remains no less gender-normative than those in “The Loves of the Plants;” indeed, an understanding of this narrative is essential to understanding the theoretical underpinnings of Brontë’s *Tenant*. Women cannot help but provide a nurturing environment for offspring, Darwin says; they have a biological mandate that operates at the level of plants, animals – and humans.

In following with this later, anti-preformationist logic, Canto II of *The Temple of Nature* compares the processes of sexual and asexual reproduction, enabling Darwin to continue the

logic of active masculine influences and downplaying the biological role of women in favor of “nurture”. Asexuality logically precedes sexual relationships on the chain of being, he says, connecting the process specifically to the sexualized plant beings of *The Loves of the Plants*: once “the living Ens” or essences of pure being reproduce, the “sires” produce “sons” and both are “unknown to sex” (II.64-5). The process of embryonic development Darwin describes here once again looks epigenesist:

New buds and bulbs the living fibre shoots
On lengthening branches, and protruding roots;
Or on the father’s side from bursting glands
The adhering young its nascent form expands;
In branching lines the parent-trunk adorns,
And parts ere long like plumage, hairs, or horns. (II.65-70)

The young plant “shoots from paternal roots” and fails to develop sexual organs: “No seed-born offspring lives by female love” (II.72-4). Asexuality is presented here as a process entirely divorced from the female, but not from the phallic “parent trunk,” “plumage” and “horns” (which Darwin’s grandson would argue, decades later, were so central to the process of sexual selection).

While these with appetencies nice invite,
And those with apt propensities unite;
New embryo fibrils round the trunk combine
With quick embrace, and form the living line” (II.77-80).

The “Parturient Sires” Darwin describes here are pictured in overwhelmingly male terms, even in spite of their being “unknown to sex” (II.89-91). Indeed, the accompanying footnote describes

asexual reproduction as “propagated by the father only, not requiring a cradle, or nutriment, or oxygenation from a mother” (35).⁴⁴

But there is, in fact, a female presence in this world: Storge, the emblematic principle of parental love, produces “soft affections [...] along the line” of births; and

On angel-wings the Goddess Form descends;
Round her fond broods her silver arms she bends;
White streams of milk her tumid bosom swell,
And on her lips ambrosial kisses dwell” (II.95-98).

Ultimately Darwin’s universe cannot operate outside the paradigm of traditional heterosexual gender and relationship dynamics. Rather than simply defining those organisms without sexual organs as without gender, he clearly genders them as male. But a benevolently female Mother Nature still stands behind the scenes, as it were, and prepares, as a figure of fertility and maternity, to enter the scene. The mother’s power, Part III of Canto II tells us, is to “nourish” and to “defend,” as well as to provide “nutrient streams” (II.104-5) – but the role of Mother Nature in particular, and mothers in general, is to provide variation to the species, as opposed to the homosexual/ homosocial asexual process, in which “Birth after birth the line unchanging runs, / And fathers live transmitted in their sons” (107-8). What finally tips the balance towards the development of sexual reproduction, Darwin claims, is desire, “the fond wish to form a softer sex,” “the potent wish in the productive hour” which “calls to its aid Imagination’s power” in order to “interweave at length / The mother’s beauty with the father’s strength” (II.113-24). The mother’s love of her offspring is so instinctual and so rooted in the body that it actually gives the mother a necessary pleasure that is irreplaceable – for example, women have a biological need to breastfeed: “The females of lactiferous animals have thus a passion or inlet of pleasure in their

systems more than the males, from their power of giving suck to their offspring; the want of the object of this passion, either owing to the death of the progeny, or to the unnatural fashion of their situation in life, not only deprives them of this innocent and virtuous source of pleasure; but has occasioned diseases, which have been fatal to many of them” (41). Though Darwin does not specify which diseases these might be, he makes it clear in this footnote that to be healthy and whole, to prevent disease in both genders, sexual reproduction is absolutely necessary.

Without the mother’s protection, without the nurture of her womb and bosom, the organism – and indeed, the entire species – is left vulnerable to degeneration: without her, Darwin writes,

The clime unkind, or noxious food instills
To embryon nerves hereditary ills;
The feeble births acquired diseases chase,
Till Death extinguish the degenerate race. (II.163-6).

Mixing and variation is the key to a healthy species; sexual reproduction is essential to this healthy variation. Since asexual reproduction offers only a straight transmission from father to son, the dangers of “a waning lineage, verging to decay” are just as prominent:

E’en where unmix’d the breed, in sexual tribes
Parental taints the nascent babe imbibes;
Eternal war the Gout and Mania wage
With fierce uncheck’d hereditary rage (II.177-80).

As John Waller notes, and as Darwin had good reason to know, being a sufferer himself, gout, mania, scrofula and consumption were all thought to be highly hereditary and particularly prominent in aristocratic families with unvaried lines.⁴⁵ Though nineteenth-century scholars

often associate fears of degeneration with the end of the century, the notion was alive and well in the late eighteenth century, though based more predominantly on class and the decline of the aristocracy than later versions, which tended to emphasize race and ethnicity. Breeders of plants and vegetables have long known what Darwin claims in a footnote in this section, that “if the male and female be of different temperaments, as these are extremes of the animal system, they may counteract each other; and certainly where both parents are of families, which are afflicted with the same hereditary disease, it is more likely to descend to their posterity” (44). Even if they lacked the technical apparatus to describe the detrimental effects of class inbreeding, there was a clear recognition that certain diseases “belonged to” – and therefore threatened the power and stability of – the aristocracy.

When Darwin proclaims, in the next section of the Canto, “hail the Deities of Sexual Love!” and defines heterosexual union as that which “give[s] Society his golden chain,” he reaffirms the statement he repeats at least four times in the first few pages of the accompanying notes, that the unique process of reproduction in organisms has the power to “perpetually improve” the species, and that without the (female) introduction of new traits, the father-son hereditary lines would quickly degenerate. The female influence is described here in terms of positive variation, that which can save the patriarchal line from its own rigid unchanging nature: the horizontal “golden chains” that keep society functioning rather than the vertical links between father and son, which alone are not strong enough to keep the social universe intact. Most of the evidence for hereditary disease exists within the aristocracy, Darwin notes, and many have been “the consequence of drinking much fermented or spirituous liquor” (44). Intriguingly for a reading of *The Tenant of Wildfell Hall*, Darwin cites alcoholism in addition to gout, scrofula and other diseases common to the degenerative aristocracy as a hereditary danger. Alcoholism,

he claims in the note on “Old Age and Death,” looks a lot like aging: the sufferer loses control of muscles and emotions. The cause of alcoholism is a “defect of voluntary power to correct the streams of ideas by intuitive analogy” or rather “to correct their trains of ideas caused by sensation” (25). In other words, the body takes control of the mind even as it becomes weaker and weaker. When parents abuse a particular substance, their organs and organ systems are weakened; they pass along these weakened systems to their children, in Lamarckian fashion, who are thus more prone to those same diseases: “A tendency to these diseases is certainly hereditary, though perhaps not the diseases themselves; thus a less quantity of ale, cider, wine, or spirit, will induce the gout and dropsy in those constitutions, whose parents have been intemperate in the use of those liquors” (45). To improve the quality of the offspring for plants or animals – though we might suspect Darwin of mentally adding humans to the list, given the conclusion to the note – it is best to choose two individuals of high quality who are highly unlike each other. As for human families, he says, “it is often hazardous to marry an heiress, as she is not unfrequently the last of a diseased family” (45)!

For Erasmus Darwin and his contemporaries, there was surprisingly little dispute over the hereditary nature of disease and particularly of alcoholism. It is worth emphasizing that which Darwin takes for granted before moving on to a reading of Brontë’s novel: in this discourse, alcoholism is a *male* disease, both socially and biologically. Because he aligns it with the “unhealthy” father-son (male-male) line of pure descent, the only logical way to prevent alcoholism in Darwin’s biological economy is the introduction of a female, who provides both biological diversity and the “nidus,” the nurturing presence that prevents the disease and others like it from taking control. The next section demonstrates how this female presence becomes both a burden and a source of power for women trapped into aristocratic marriages. Ultimately, I

will argue, in spite of the novel's bleakness, *Tenant* presents an alternative to the determinism of hereditary degeneration, one predicated on a woman's tenuous power of nurture. Brontë's Helen Graham embraces Darwin's notion of a mother's role as nurturer but expands it to posit a more direct maternal power of influence over offspring.

III. Eradicating the weeds: Helen's maternalist campaign against mental contamination

In her Preface to the second edition of *The Tenant of Wildfell Hall* (1848), Anne Brontë writes that her aim is not art but truth:

But as the priceless treasure too frequently hides at the bottom of a well, it needs some courage to dive for it, especially as he that does so will be likely to incur more scorn and obloquy for the mud and water into which he has ventured to plunge, than thanks for the jewel he procures; as, in like manner, she who undertakes the cleansing of a careless bachelor's apartment will be liable to more abuse for the dust she raises, than commendation for the clearance she effects. (3)

Brontë positions herself as a naturalist, recalling her pastime of copying drawings in the margins of her father's texts on natural history, a gatherer of facts rather than a teller of stories. She provides a tangle of metaphors for her readers, one which ultimately performs the same trickery and obfuscation it describes. The central analogy is tellingly unbalanced; the (male) diver surfaces with a "priceless treasure," after all, while for the woman (is she a housekeeper? A relative of the "careless bachelor" in question?), virtue and cleanliness seem to be their own rewards, and she remains confined to a private, domestic space. The diver enters the natural realm, disregarding the mess he leaves behind, trusting that a woman will restore order: as Alan Bennett's redoubtable Mrs. Lintott claims, "History is women following behind with the bucket."⁴⁶ *Agnes Grey*, Brontë continues, "was accused of extravagant over-colouring in those

very parts that were carefully copied from the life, with a most scrupulous avoidance of all exaggeration” (3), but both *Grey* and *Tenant* are the works of an empiricist, one who observes and copies from nature. Brontë’s attempts at generic hybridity call to mind Darwin’s experimental works, but she maintains an affiliation with the structure of the gothic novel (the isolated house, the innocent woman entrapped and pursued by dominating males) in spite of her insistence on narrative realism.

This second novel tells the story of Helen Huntingdon, who flees her abusive and alcoholic husband with her son Arthur. Her flight is less about protecting Arthur from physical abuse levied on him than it is about protecting him from the *influence* of his father, based on a firm belief that her son has inherited a tendency to his father’s weaknesses – a tendency which may yet be avoided if he spends his time in the right environment. Meanwhile, as a “widow” who arrives suddenly and shuns all company, she excites the curiosity of her neighbors and the extreme, passionate and occasionally disturbing admiration of farmer Gilbert Markham, who pursues her as relentlessly as her still-living husband. *Tenant* has received significantly less critical attention than contemporary novels by Emily and Charlotte Brontë; those who have written about the novel have focused mainly on its peculiar narrative strategies and the legal status of motherhood in mid-century Britain.⁴⁷ However, Brontë’s use of agricultural metaphors reveals a rich engagement with the traditions of natural history, particularly those I have described in the previous section, and a keen interest in investigating the role of gender within the already questionable impact of heredity.

Helen’s first strategy in fighting the effects of Arthur Huntingdon’s hereditary degeneracy upon their son is to limit young Arthur’s exposure to his father’s potentially detrimental influence – and, indeed, any other possible influence as well. She owes her own

moral standing to her upbringing, she notes: “Thanks to you, aunt, I have been well brought up, and had good examples always before me, which he, most likely, has not” (140). Not only has Arthur’s family failed to provide the genetic ground for well-adjusted offspring (though, we find out in a side note, Helen’s own father also died of alcoholism), they have also allowed him to wallow in an unsavory environment: as Helen’s aunt tells her before marriage, he is “banded with a set of loose, profligate young men, whom he calls his friends – his jolly companions, and whose chief delight is to wallow in vice, and vie with each other who can run fastest and farthest down the headlong road, to the place prepared for the devil and his angels” (142). Nor will simply changing his environment at this point in his life effect a positive behavioral shift; it is only during the formative years of youth, and the genetically formative years of one’s historical predecessors, that this kind of change can occur. Helen takes this lesson of a wife’s inability to educate her husband to heart by applying it with a vengeance to her son, whose every move she keeps herself abreast of. Much to the dismay of Gilbert and her other neighbors, Helen keeps Arthur near her at all times, refusing even to leave him alone with her servant. That a mother should keep her son from male society and from the masculine pursuits of social drinking scandalizes the Markhams, who declare that she is “treat[ing] him like a girl,” “spoil[ing] his spirit)” and “mak[ing] a mere Miss Nancy of him” (29). The local reverend agrees, noting that Arthur should be sent to school – both to learn to socialize with his male peers, and to learn independence from his mother: in other words, to learn to be masculine without a father’s influence. “If you would have your son to walk honourably through the world,” Gilbert tells her, “you must not attempt to clear the stones from his path, but teach him to walk firmly over them – not insist upon leading him by the hand, but let him learn to go alone” (28).

The villagers echo the abusive critiques of Arthur Huntingdon, Sr., who brings a mistress posing as governess into the house before Helen has fled with her son. He justifies his new choice to Helen by telling her that “[I] was not fit to teach children, or to be with them: I had already reduced the boy to little better than an automaton, I had broken his fine spirit with my rigid severity; and I should freeze all the sunshine out of his heart, and make him as gloomy an ascetic as myself, if I had the handling of him much longer” (366). For Arthur Sr., childrearing shares its key impulse with horse-rearing; the key is to tame the horse without breaking its spirit or reducing its wildness. To allow a horse to run too wild, he claims, is simply recklessness, akin to the masculine pursuits of drinking and gambling run wild. Similarly, Helen writes that Huntingdon and his friends “delighted to encourage” Arthur “in all the embryo vices a little child can show, and to instruct in all the evil habits he could acquire – in a word, to ‘make a man of him’ was one of their staple amusements” (335). The raw material for vice is already present in “embryo” form, but the question of how to “make a man” of her son without making him like the man that is his father is Helen’s chief concern. In the context of an embryology which privileged the father’s biological contribution to his offspring, the question becomes ever more crucial. On the other hand, the profligate Hattersley, upon his reform, learns to “avoid the temptations of the town” and choose instead “the usual pursuits of a hearty, active country gentleman; his occupations being those of farming, and breeding horses and cattle, diversified with a little hunting and shooting” when not surrounded by “his fine family of stalwart sons and blooming daughters,” whose health is echoed in “his noble breed of horses” for which he is renowned throughout the country (440-1). By learning to breed – on the farm, through husbandry, and in his own healthy family – Hattersley becomes a true model of masculinity and of gentlemanliness, rather than a man who has, like Huntingdon (and his horses), run wild.

Helen reframes the breeding metaphor, focusing not on the masculinized world of horse-taming but on the more gender-neutral realm of gardening. Janet Browne notes that botany was considered an appropriate subject of study for both men and women of the upper classes. Whereas the farm was a space in which men performed acts of domestication, the garden was open to all and fostered the feminine arts of drawing and meditation as well as the amateur scientist: what Michael Waters terms “flower-mindedness” was a discourse that allowed one to declare one’s gentility and class status without crossing gender boundaries.⁴⁸ Upon meeting the impertinent Fergus Markham, who asks why she should choose a place such as Wildfell Hall, Helen defends her choice by claiming the garden as a main attraction of the property and listing the “improvement” she has already made by planting vegetables and flowers “already in bloom” (57). Fergus almost immediately adopts her metaphor himself but attempts to assert his own dominance by referring to himself and his neighbors as “the indigenous plants of the soil” and inquiring after her “birth, extraction, and previous residence” (58). He thus questions her genealogy but also accuses her, via the gardening metaphor, of being “foreign”; though Charles Darwin’s accounts of the potential ravages committed by mixing of domestic and foreign species had not yet been published, other works certainly pointed toward dangerous consequences of dropping one’s guard against carefully controlled breeding and seeding practices.⁴⁹ Gilbert himself takes up the metaphor in referring to himself as helpless victim of a manipulative/monstrous she-gardener, noting that Helen took “pleasure in mortifying my vanity and crushing my presumption – relentlessly nipping off bud by bud as they ventured to appear” (67). As gardener, Helen would allow no form of reproduction; as woman, she metaphorically castrates him. His response is to “invade the sanctum” of her home at the first possible moment – by bringing gifts for her son and a plant for Helen (68). For Gilbert, who vacillates between an

energetic, even vicious willingness to take action at the first sign something might be wrong (for example, his attack on Lawrence) and a disturbing refusal of his own agency (i.e., the moment when he assigns half the blame for his murderous attack on Lawrence to the construction of the whip), presenting Helen with a plant is both a way of asserting his own sense of belonging in her garden or her sanctum, and a way to push the blame for his failures onto her own poor skills as manager/gardener.

Whereas Helen's tactic is to isolate her son from the troublesome influence of his father, she takes the opposite approach when it comes to Arthur's hereditary tendency toward alcoholism. Rather than sheltering him from spirits entirely, she says, she "[had] been accustomed to make him swallow a little wine or weak spirits-and-water, by way of medicine when he was sick," in order that he might develop an aversion to alcohol that would protect him from succumbing to his hereditary weakness; she has "done what [she] could to make him hate them" (27).⁵⁰ And according to Gilbert, this experiment in conditioning is more than successful: he notes that "Arthur especially shrank from the ruby nectar as if in terror and disgust, and was ready to cry when urged to take it" (27). Helen defends her plan, arguing that her son "will have temptations enough to assail him, both from within and without, when I have done all I can to render vice as uninviting to him, as it is abominable in its own nature" (29). Later, Gilbert's mother gossips about Helen's unorthodox parenting method, asking Rev. Millward if he thinks Helen's prohibition on alcohol is (morally) "wrong"; the vicar replies that it is "criminal" and "despising the gifts of Providence, and teaching him to trample them under his feet" (38). His unintentional punning on the winemaking process is interrupted by Frederick Lawrence, who we later discover is Helen's brother (and therefore also the son of an alcoholic) and who again identifies the role of heredity: "when a child may be naturally prone to intemperance – by the

fault of its parents or ancestors, for instance,” he says, “some precautions are advisable” (38). Maternal training can reduce the likelihood of alcoholism later in life, delivering young Arthur from “secret curiosity” and “hankering desire” by the inculcation of strong habits – both mental (lack of *desire* to drink) and bodily (physiological aversion to drink). Gilbert once again resorts to a metaphor of domestication to describe Helen’s parenting tactics; rather than allowing her child to grow up unfettered by restraints, she is “a woman liable to take strong prejudices, I should fancy, and stick to them through thick and thin, twisting everything into conformity with her own preconceived opinions – too hard, too sharp, too bitter for my taste” (39). Like a farmer – like Gilbert, in fact – Helen takes control of the conditions of growth and nurture, trespassing into the more active and masculine realm of rigid oversight, rather than her assigned role of fertile and suberabundant nurturer.

Helen’s responses to these critiques of her parenting tactics reveal as much about her views of biology and gender as they do about education. If the mother’s role in protecting her son from “contamination” is her response to Huntingdon’s dominance over his son, her framing of education as a metaphor of plant breeding actually helps to quash Gilbert’s influence over Arthur. At the start of the scene in which Helen explains her philosophy of parenting, Gilbert sits aloof from the rest of the company and pretends to read the *Farmer’s Magazine*; with encouragement from Gilbert, Arthur approaches the dog and eventually sits on Gilbert’s lap, “surveying with eager interest the various specimens of horses, cattle, pigs, and model farms” in the magazine. This is the first of many times when Gilbert uses Arthur to gain Helen’s attention, but Arthur’s exposure to the implements of farming is significant in that it foreshadows the metaphorical thrust of Gilbert’s and Helen’s disagreement over education and child-rearing. Indeed, Gilbert’s argument against Helen’s supposed spoiling of her son is that “if you were to

rear an oak sapling in a hothouse, tending it carefully night and day, and shielding it from every breath of wind, you could not expect it to become a hardy tree, like that which has grown up on the mountain-side” (30). Domestication, or rather human interference in the natural cycles of growth and death, weakens not only the individual but the species as well. As a farmer, Gilbert would have been all too aware of contemporary conversations about the most effective methods of breeding cows, sheep, and crops, though his earlier hesitance to fully embrace his legacy as a farmer (and thus renounce his ‘ambitions’ – ultimately realized by marrying above his station) helps to undermine his logic before Helen says a word.

For her part, Helen is quick to point out that the language of “wildness” and “domestication” is highly gendered: if her son had been a daughter, she says, “you would have her to be tenderly and delicately nurtured, like a hot-house plant – taught to cling to others for direction and support” (30). The “trite simile” Gilbert uses implies that exposure to vice will instantly ruin a woman but strengthen a man: experience of vice to a boy “will be like the storm to the oak, which, though it may scatter the leaves, and snap the smaller branches, serves but to rivet the roots, and to harden and condense the fibres of the tree” (31). A mother’s role is to protect and nurture her children – in other words, to metaphorically step into the role of the farmer who carefully oversees the breeding of his crops. As she puts it later, “I exerted all my powers to eradicate the weeds that had been fostered in his infant mind, and sow again the good seed they had rendered unproductive. Thank Heaven, it is not a barren or a stony soil; if weeds spring fast there, so do better plants” (354). Brontë suggests that the physical and mental differences in gender are at least partly due to the differences in how we educate boys and girls; were our education system to change, women’s bodies might no longer be quite so delicate as the hothouse flower that dominated Victorian angelology. And though a child might inherit

biological traits from its mother or its father, highly gendered cultural and social systems help to “activate” one set of traits or “seeds” over another.

I want to conclude this section by turning briefly to another question of heredity in the novel, one that resonates more broadly with other works of fiction during the period. As in *Wuthering Heights*, one of the central mysteries of the novel’s plot is who young Arthur resembles, his mother or his father. Gilbert, who shares the narration of the novel with Helen, first suspects that Helen’s landlord Frederick Lawrence is actually the child’s father: “Both, it is true, had more delicate features and smaller bones than commonly fall to the lot of individuals of the rougher sex, and Lawrence’s complexion was pale and clear, and Arthur’s delicately fair; but Arthur’s tiny, somewhat snubby nose could never become so long and straight as Mr. Lawrence’s” (76). Though Gilbert successfully talks himself out of this premise, his jealousy of Frederick colors his perceptions – though to what extent, we cannot be certain. (This is of course further complicated by the fact that Lawrence turns out to be Arthur’s uncle and Helen’s brother, so a resemblance is likely.) Similarly, Walter, a friend of her husband’s who warns Helen of the extent of his carousing on trips to London and eventually pursues her as a romantic interest, uses the child to get closer to Helen: he says he is not generally fond of children, but that Arthur “is such a sweet child – and so like its mother.” Helen correctly reads this social cue as a form of flirtation, and replies that “it is its father it resembles” (238), thereby reinforcing her son’s parentage as a way to fend off a potential threat to her virtue.

In the novel’s conclusion, after Huntingdon’s death and upon reuniting with Helen, Gilbert surveys Arthur, now seven, and concludes that he is “altered,” having become a “comparatively tall, slim young gentleman with his mother’s image visibly stamped upon his fair, intelligent features, in spite of the blue eyes beaming with gladness, and the bright locks

clustering beneath his cap” (460). Upon seeing Helen, on the other hand, Gilbert notes that “she looked so like herself that I knew not how to bear it” (461). Furthermore, he says, “I was particularly glad to see her beautiful black hair unstinted still and unconcealed in its glossy luxuriance” (461) – in other words, no longer covered by mourning. What are we to make of this scene? To the dismay of so many of the novel’s critics – and, I admit, to my own – Gilbert has the last word in a novel obsessed with the social power of narrative. Arthur hasn’t changed physically; he still carries his father’s blond hair and blue eyes, but what of the vagueness of his mother’s “image stamped on his face,” a phrase without much meaning in a passage that utterly fails to describe the dark-haired Helen. Gilbert is a notoriously unreliable narrator with an almost unrivaled power to see and hear only what he wants, so it seems reasonable to read this notion as a function of his delusional nature. Nonetheless, the novel does sever the question between physical and moral resemblance; one does not necessarily indicate the existence of the other.

This suggests several things about Brontë’s treatment of resemblance. First, the logic of resemblance is not always to be trusted; to some extent it may be in the eye of the beholder. Huntingdon’s aristocratic blood doesn’t have the kind of magnetic repetitive power over his son we have seen in *Wuthering Heights*. Who young Arthur looks like at any given time is subject to change over time and based on the viewer. Similarly, Brontë’s text breaks from a number of other novels in the early Victorian period that assume a corresponding relationship between external features and internal traits. Though Helen expresses anxiety that Arthur’s resemblance to his father *could* indicate his inheritance of his father’s tendencies towards alcoholism and abuse, she is far from making the kind of correlation that happens again and again in, say, Dickens’ novels. After all, Huntingdon cruelly notes that her father “thought proper to drink himself to death” – an indicator, otherwise unexpressed by Helen, that young Arthur could have

inherited the tendency toward alcoholism from *both* parents, and not just from his father. Upon looking at a portrait she had painted of Huntingdon early on in their marriage, Helen says that she has refrained from destroying it “chiefly that I may compare my son’s features and countenance with this, as he grows up, and thus be enabled to judge how much or how little he resembles his father” (377). As in the previous discussion about education, social perceptions – of who one looks like, what gender one behaves like – matter just as much as biological connections. For both Helen and for Gilbert, resemblance is not important in and of itself; rather, it speaks to the invisible, unquantifiable traits young Arthur has possibly inherited from his parents. In the end, it is debatable whether their attempts to claim Arthur as like his mother or unlike his father are valid, or rather, whether Helen’s maternalism is ultimately successful. In the final section of this chapter, I will explore the novel’s ambivalent ending, typical of the gothic genre in that the imperiled heroine is removed from one domestic trap only to enter into another, seemingly more palatable one, and this ending’s consequences for Helen’s maternalist strategies.

IV. Conclusions: The meanings of motherhood

Ultimately, for both Darwin and Brontë, successful inheritance and breeding – that is to say, a future unfettered from the restrictions of degenerative hereditary contaminations – rely on the broader connections of a healthy social network. In *The Temple of Nature*, Darwin makes this claim quite literally. Not only human society but all physical being relies on invisible chains of connection, something akin to George Eliot’s famous web at the heart of *Middlemarch*. At the microscopic level, love helps to “Press drop to drop, to atom atom bind, / Link sex to sex, or rivet mind to mind” (I.25-6). Chains also link generation to generation; marriages link contemporaries and reproduction provides a vertical connection between generations.⁵¹ Sympathy, Darwin explains, is animalistic, an innate urge that occurs within the human species

as well as other kinds of animal groupings – “heaven-born Storge [love between parents and children] weaves the social chain” (Canto 2, II.92). And yet in Darwin’s posthumously published vision of human families and human society, the strength of the connecting ties is mostly masculine: asexual reproduction, as described above, is the moment when “Birth after birth the line unchanging runs, / And fathers live transmitted in their sons” (Canto 2, III.107-8). The feminine influence enters the reproductive process only through the power of male desire (“The potent wish in the productive hour / Calls to its aid Imagination’s power” [2.III.117-8]). The mother’s role in birth and education is one of nurture and nutrient; she protects against the power of hereditary disease by ensuring the overall health of the offspring:

Where no new Sex with glands nutritious feeds,
Nurs’d in her womb, the solitary breeds;
No Mother’s care their early steps directs,
Warm in her bosom, with her wings protects;
The clime unkind, or noxious food instills
To embryo nerves hereditary ills;
The feeble births acquired diseases chase,
Till Death extinguish the degenerate race. (2.IV.159-66)

Without the “golden chain” of marriage (sexual reproduction), the “curled leaves, or barren flowers, betray / A waning lineage, verging to decay,” but if “amended by connubial powers,” there might “Rise seedling progenies from sexual flowers” (2.IV.173-6). Marriage is socially and biologically healthy at the level of the individual and the species – and if not always beneficial for the individual, as in Helen’s case, at least for her progeny.

Though it is clear from his other writings that Darwin imagines a version of inheritance in which both parents contribute hereditary material to the offspring, *The Temple of Nature* (subtitled “The Origin of Society”) presents a more conservative version of the family unit. Without the womanly influence of love and nurture, the entire species is at risk of degeneracy and eventual obliteration. What saves the human species from this, Darwin notes at the end of the third Canto, is sympathy; though figured (like Love and Chaos) as a masculine trait come down from Heaven, sympathy “charms the world with universal love” (3.VIII.478) and also “Bind(s) sex to sex, and mingle(s) soul with soul [...] And gives Society to savage man” (3.VIII.482-4). In *A Plan for the Conduct of Female Education in Boarding Schools*, Darwin notes that although young women should certainly be educated, as they will be tasked with the education of the next generation themselves, “The female character should possess the mild and retiring virtues rather than the bold and dazzling ones” (10). Nonetheless, he recommends a fairly rigorous attention to history, various sciences, art and literature, along with limited amounts of the more traditional accomplishments of drawing, dancing and music. Nor should children, male or female, be shielded entirely from the less pleasant aspects of life they may come across in literature: “ [...] so long as they are under the eye of a judicious monitor, no real harm could probably arise from their seeing human nature in all the classes of life, not only as it should be, or as it may be imagined to be, but as it really exists, since without comparison there can be no judgment, and consequently no real knowledge” (37). Indeed, the text’s frontispiece refers to the much-used metaphor, even at the turn of the century, of education as “breeding”: “Plant with nice hand Reflection’s tender root, / And teach the young Ideas how to shoot!” Young minds, Brontë would agree, are fertile soil which must be cared for and “weeded” regularly in order to encourage only the most beneficial growth. The process of education, in its

formal or informal sense, helps a twenty-first century audience used to thinking in terms of a strict nature-nurture binary to move outside of that restriction.

Both Darwin and Brontë anticipate the rise of a middle class freed from the degeneracy of a long pedigree, but nonetheless rooted in social sympathy and parental love. What these texts in particular reveal is not so much a wholesale rejection of the power of heredity and inheritance during the first half of the nineteenth century, but a reimagining of those concepts along new lines. Both authors recognize that environment can help combat the unpleasant powers of inherited disease and temperament. Nonetheless, the ending of Brontë's novel is ambivalent in the terms of this debate and seems to indicate that a mother's love may be redemptive, but is ultimately insufficient outside the logic of heterosexual union. Helen rescues her son from the clutches of an abusive father – only to remarry another violent and jealous man (though this time, not an aristocrat) whose narrative voice, as many of the novel's critics have noted, subsumes her own. For his part, Gilbert declares Arthur's resemblance to his mother in order to declare his own triumph over the elder Huntingdon, as an attempt to erase his adopted son's genetic history and his wife's marriage history as he enters the family: he recasts Helen as "the merry little Helen Hattersley, of yore," and describes Arthur as "my own Helen's son, and therefore mine, and as such I have every since regarded him" (469). Gilbert dismisses Huntingdon's invisible and continuing presence in his family, and in doing so dismisses the power of genetic inheritance entirely. However, this does not mean that he upholds Helen's maternal powers. By subsuming her narrative – indeed, we discover that not only is his word the novel's last, but he has copied and sent her diary to another man – he denies her power to tell her own story, and to influence the development narrative of her son.

However, Helen's maternalism is a haunting presence within Gilbert's postscript, in spite of his seeming obliviousness to his own rather totalitarian approach to marriage. When Arthur enthusiastically presents an illustrated book of natural history, and Helen leads Gilbert to her winter garden, mother and son return to the logic of domestication as a final declaration of the inevitability of breeding – and the potential for positive guidance of that process through domestication. Gilbert seems agreeable in both instances, but underscores that it is nothing more than a performance: regarding Arthur, he says that “Had he come a minute before, I should have received him less graciously;” and as for the gardens themselves, he says, “of course, I had little attention to spare for *them*” (469). Though mother and son guide Gilbert back to the metaphors of domestication and cultivation, he tolerates them only insofar as they allow him to be closer to Helen. No wonder Helen's aunt declares to Gilbert's face that “Could she have been contented to remain single, I own I should have been better satisfied” (470). Helen's own final words in (Gilbert's) narrative, when regarded as such, reverberate rather menacingly: “There now – there Gilbert – let me go – here's Arthur, don't astonish his infantile brain with your madness” (470). Helen, we see, has no intention of allowing Gilbert free reign over her son's yet impressionable mind. And in the final paragraph, Gilbert declares that in becoming Helen's husband he has not only wiped all mention of Huntingdon's name from their lives but taken over his role as country gentleman himself:

I bequeathed the farm to Fergus, with better hopes of its prosperity than I should have had a year ago under similar circumstances; for he had lately fallen in love [...]. As for myself, I need not tell you how happily my Helen and I have lived and loved together, and how blessed we still are in each other's society, and in the promising young scions that are growing up about us. We are just now looking

forward to the advent of you and Rose, for the time of your annual visit draws nigh, when you must leave your dusty, smoky, noisy, toiling, striving city for a season of invigorating relaxation and social retirement with us. (471)

In the novel's final words, Gilbert clearly aligns himself with the leisured life of the aristocracy Helen has fought so hard against; he has risen above his station as farmer, and freed himself from the laboring middle classes in the city. Gilbert comes to occupy the garden, and in wiping out any mention of Huntingdon, he has embraced the middle class Victorian dream of class mobility and freedom from the past – freedom, in fact, from the bonds of biological inheritance, except in the case of his own “scions” who will carry the Markham name into the future. We can read the ending of *Tenant* not as the defeat of genetic authority in the heyday of Victorian liberalism, but as a pointed critique of the conflation of legal and biological ties and the social systems which allow that liberalism to continue unencumbered. By subverting the eighteenth-century metaphors of personhood and the discourse of botany, Brontë presents a viable alternative rooted in the social and biological role of the mother in society – but cautions her readers not to read that model as utopian, since it still exists within the confines of Darwin's “golden chains,” which remain alive and well into the nineteenth century.

Chapter Three

The Space Between Idea and Manifestation:

Determinism in Darwinian Pangenesis and Wilkie Collins

I. Introduction: Mid-Victorian theories of individual agency and determinism

The first two chapters in this project examine novels which respond to scientific struggles to systematize heredity by presenting it as the gothic element within a domestic narrative, an element which is eventually contained through socially acceptable marriage. As the century progressed, the scientific debates over heredity took a darker turn; at the same time, they became less accessible to the common reader. No longer could a country minister of average or even above-average intellect keep a library full of scientific texts – and understand them – without further study or training, as Patrick Brontë and any number of his contemporaries did. This turn – towards a set of theories that more overtly threatened the very basis for what it meant to be human, to belong to a family, race or nation – gets reflected in the late-century novels which take heredity as their theme, largely expressed through the motif of determinism. Though they employ very different strategies, the novels I analyze in chapters three and four of this project demonstrate a shift away from the contained (if unsatisfactory) endings of *Wuthering Heights* and *The Tenant of Wildfell Hall*. These later works instead reflect the same frustration with gothic taxonomies expressed in scientific texts, but without an effort to contain them. I will return to the question of why this might be so in the conclusion to this project, but for now I want to suggest that it was rooted in the increasingly distinct split between the disciplines. Though *The Origin of Species* was widely read and reviewed in popular journals, the latter half of the century

saw works of biology and natural history become more and more esoteric and less available to the educated (but not specialist) reader. Nonetheless, it seemed – on the surface at least – that the scientific discourses continued to try to solve the same “commonsense” problems that faced them earlier in the century. Jenny Bourne Taylor notes that as early as the publication of Lavater’s treatise on physiognomy in the late eighteenth century, scientists were trying to “[confer] scientific credibility on already existing preconceptions” (49).⁵² That science textbooks today classify physiognomy as a “pseudo-science” and early theories of the genetic as serious enterprises is largely a matter of the clarity of hindsight. In reality, Victorian scientific efforts to theorize a biological mechanism of inheritance were not all that different from, and often deeply connected to, the “pseudo-sciences” of physiognomy and phrenology. Just as physiognomists and phrenologists attempted to discover the relationship between internal traits (what we now refer to as genotype) and external expressions of those traits (phenotype), biologists and naturalists of the period tried to determine what system governed the tangled web of what children inherited from their parents. That inheritance from parent to offspring was the norm in reproduction was well-established by mid-century scientists. T.H. Huxley’s review of the *Origin* notes that “It is the first great law of reproduction, that the offspring tends to resemble its parent or parents, more closely than anything else” (31), even while “[t]here is always a certain amount of deviation, not only from the precise characters of a single parent, but when, as in most animals and many plants, the sexes are lodged in distinct individuals, from an exact mean between the two parents” (34).⁵³ The difficulty lay in finding a biological explanation for a common-knowledge phenomenon, but biologists relied on an ever-increasing faith in an unseen system of rules that governed the inheritance of traits. The language was there; they had only to decipher the code.

This chapter takes up the scientific debate over the mechanisms and nature of heredity at just the moment when it began to be clear that a code of some sort, a set of natural laws, did in fact govern the process. Charles Darwin's theory of pangenesis, which I will discuss in the first half of the chapter, represents what is perhaps one of the most important developments in the history of the discipline of genetics, though it receives far less critical attention than it deserves. Darwinian pangenesis was the first fully materialist theory of heredity, but it is a materialism based on non-empirical and invisible evidence. This clash – a physiological process that could not be expressed through the customary terms – led Darwin to pursue a series of contradictory and logically invalid metaphors which ultimately express yet another example of what I have called gothic taxonomies in the structure of heredity. In Darwin's case, the main challenge to his system of pangenesis was the extent to which it required him to embrace a form of determinism that directly contradicted his earlier formulations of natural selection. The second half of the chapter proposes that Wilkie Collins' novels quite deliberately pursued the same tactics as Darwin's works as part of a gothic and sensational strategy. By dwelling on gothic taxonomies of their own, by exploiting the contradictory nature of metaphor within the sensation novel itself, and by refusing the comfort of a fully certain conclusion, Collins' texts ultimately suggest that the trappings of that mode are indeed an explicit comment upon the genetic, a critique of scientific discourse's flawed attempts at knowing the unknowable, writing the unwriteable.

In this chapter I will argue that the concept of "influence" united scientific and literary conversations, providing a middle ground between unfettered free will and hard determinism. The gothic novel, and particularly the sub-genre of sensation fiction, provided a space in which novelists could experiment with the laws of ancestry and determinism by creating worlds in which natural "laws" could be suspended or enacted at will. In spite of an arsenal of available

terms, I choose to investigate the role of *influence* in this chapter for several reasons. First, it draws together the logic of biological determinism and the genre of sensation fiction in a particularly useful way. Influence – of literature, but also of biology, of circumstance or environment, of personality, and of religion – was a central and driving concern of the mid-Victorians. The word’s etymology recapitulates sensation fiction’s secularization of earlier Gothic tropes of religious and supernatural superstition (though, as we shall see, fails to escape them entirely): from the French, the term was originally used to refer to an “emanation from the stars” or an “inflow of water” (OED). During the medieval period an influence was quite literally a fluid from the heavens with the power to interfere both in character at large and with the specific actions of an individual. Eventually the term became more figurative in its usage, and the causal element was deleted entirely; by the eighteenth century it had come to signify “the capacity or faculty of producing effects by insensible or invisible means, without the employment of material force, or the exercise of formal authority; ascendancy of a person or social group; moral power *over* or *with* a person; ascendancy, sway, control, or authority, not formally or overtly expressed” (OED). That influence is a question of *authority* brings us back to the role of the text itself, but the definition moves away from legible codes of understanding with definable causes towards an unwritten, untraceable, invisible network of power: the same power, I contend, that mid-century biologists were trying to define as they performed experiments in heritability. Accordingly, the first half of the chapter explores how this move away from linear models of cause and effect allowed scientists to find new ways to account for mysterious processes of reproduction and inheritance, particularly latency, mutation and prepotency.

Heredity had long been associated with biological determinism and a lack of individual control over choice and personality. By the nineteenth century, suffering from “the sins of the

fathers” was less about the long shadow cast by sinful actions of the past than about the tendency of offspring to repeat ancestral behaviors. A Lamarckian model of inheritance indicated an even more binding determinism: if an organism cannot control its environment, and environmental changes can be inherited, then it may find itself at the mercy of both internal and external sources. This model of heredity as the site of behavioral determinism offered a serious challenge to the notion of the liberal individual, from John Stuart Mill’s insistence that the individual was in full control of his or her environment and subjectivity to Samuel Smiles’ emphasis on the values of self-reliance and industry. In spite of multiple conflicting viewpoints on determinism (biological or otherwise) at mid-century, scientists and novelists generally agreed upon a materialist version of heredity but were ambivalent about the extent to which the concept bound them to philosophical determinism. On the one hand, embracing a fully autonomous subject disregarded the growing corpus of scientific evidence about the extent to which heredity helped to shape the individual’s body, character, and actions. Lombroso’s notion of “criminal classes” who were simply born to a life of poverty and crime, an inescapable fate that was both social and biological, would not become dominant in England until the last decades of the century. In the meantime, there had to be some middle ground that would allow scientists and philosophers to reconcile biological and political pictures of the individual.

Alexander Walker’s *Intermarriage* (1838) was one of the earliest attempts to plot the intricacies of biological inheritance in terms of social systems; it included engravings of the royal families of Britain and France as easy reference points for its audience to trace the system of resemblances Walker was trying to describe.⁵⁴ The Advertisement for *Intermarriage* humbly claimed that the work described “the science which, for the first time, points out and explains all the natural laws that, according to each particular choice in intermarriage, determine the precise

forms and qualities of the progeny” (xvii) and would allow the average reader not only to understand and identify currently visible resemblances but, importantly, to *predict* what might happen to future offspring based on the choice of partners. Walker adapted his theory, which Charles Darwin cites as one of the central influences on his *The Variation of Animals and Plants Under Domestication* (1868), into a manual for popular use in order that the middle classes might avoid the twin traps of degenerate aristocratic legacies and underdeveloped lower classes and, in doing so, predict the health, characteristics and morality of their offspring. Ultimately, Walker was interested in demonstrating that humans had as much control over their inherited traits as did agriculturalists who bred farm animals for particular qualities, or showmen who bred, say, roosters or pigs for a particular trait, what he refers to as the “consequent easy improvement of families in beauty of forms and excellence of functions” (xix). Though one individual couldn’t control the mechanism of material inheritance itself, she could at least educate herself about the likely outcomes of inheritance and use that knowledge to choose a partner wisely.

Reading Walker likely helped to cement Darwin’s own interest in how human choice controlled biological inheritances. In Part One of this chapter I will demonstrate more fully how his work on individual inheritances actually attempted to counter the intangible forces presented in his narratives of natural selection and deep time. Our current snapshot of Darwin depicts the man who ushered in the era of determinism, who wrested control of destiny from what Bourne Taylor calls the earlier narratives of “moral management” and transferred it to terrifying godless forces. This picture is undoubtedly correct – but, I will argue, it is incomplete. By expanding its borders just slightly, by zooming out, as it were, on our own cultural preconceptions, and by shifting our own taxonomies, a different picture emerges. Darwin was far from an absolute

determinist, as an analysis of his theory of pangenesis, one of the first formalized genetic theories, will show – at least, not in the sense we tend to imagine. Drawing on Walker’s *Intermarriage*, Darwin introduces his speculations on the mechanism of heredity not as part of his theory of natural selection but within his work on variation and breeding. Humans can control reproduction in other species – and also their own. Whereas natural selection was the dominant mechanism of evolution, heredity was the controlling force of “artificial” selection. Of course, the two processes are inseparable, but it is worth considering why Darwin should couch the latter but not the former so explicitly in terms of inheritance. Darwin, meanwhile, carried on his own struggles with language and metaphor. The boom in Darwin studies over the past thirty years has certainly emphasized the role of metaphor in Darwin’s writings, positioning Darwin as a “literary” writer as much as a scientist, and contemporary novelists as scientific writers as well as storytellers.⁵⁵ In part two of this chapter, I will explore the philosophical implications of Darwin’s often confused and logically inconsistent use of large-scale metaphors to frame his arguments. By purposely using figurative language that doesn’t quite fit the facts, and by emphasizing the imperfection of his own figures and models, Darwin resists the hard determinism that seemed to be inherent in a materialist theory of genetics – performing the same rhetorical move as Wilkie Collins in his novels most explicitly concerned with hereditary discourses.

Novelists, too, were fascinated by the implications of heredity, a term which, I will argue in the final chapter, would become far more synonymous with simple determinism by the end of the century. What if humans have little or no choice over their own behaviors? Can anything tip the scales against heredity and allow space for human choice? Does biological inheritance doom the individual to repeat the past – the “sins of the fathers”? The sensation novel allowed for a

conflation of the old superstitions, couched in gothic terms, with new scientific speculations. Sensation fiction, which reached its height in the 1860s and was led by authors Wilkie Collins and Mary Elizabeth Braddon, was uniquely positioned to attempt to answer these questions. By blending gothic motifs with the ordinariness of domestic realism, sensation fiction was perhaps itself influenced by its own generic makeup to consider questions of how family history and environment influenced and even controlled individual behavior. Investigating the secrets hidden within the middle-class household was akin to peering (impossibly) into the hereditary secrets of the family tree. It was these hereditary skeletons in the closet of the typical family unit – invisible, and detectable only far into the future – that made it so extraordinarily vulnerable to threats from both outside and inside. The sensation novel exploited that vulnerability, playing off its readers’ anxieties about the modern family. Contemporary reviewers amplified this concern by focusing on the ways in which the genre was designed to affect the reader’s mind *and* body; part two of this chapter will explore the ways in which reviewers’ definitions of “influence” differed widely from Collins’ own. While novelists claimed that their stories were, to use a cliché today’s readers might be more familiar with, “ripped from the headlines,” reviewers worried about just the opposite effect, an anxiety whose lineage reaches back to the earliest days of the novel. In other words, might the mental and physical thrills provided by the sensation novel actually spur readers to bigamy, murder, or any of the other criminal and sensational plots they encountered in fiction? How does fiction – or even regular access to detailed crime reports in the newspaper – influence its audience?

Wilkie Collins would nod to this debate in the two novels I will discuss in the second half of the chapter. The villainous Lydia Gwilt in *Armadale*, upon rereading letters from her former lover, discovers a newspaper report he has copied in order to spur her on toward murdering her

husband. Though her lover has copied it only to prove that a woman may possess the courage and resolution to kill her husband, Gwilt's rereading provides her with the intricacies of the plot she will use to gain control of the Armadale estate: "When I had got on, line by line, to those words, it burst on me like a flash of lightning," she writes in her journal (538). Even worse, she says, "The whole thing has been in my Diary, for days past, without my knowing it!" Reading a text copied into a love letter has allowed her to reinterpret her own coded thoughts. Several decades later, in *Legacy of Cain*, Collins repeats the plot device with another villainess. Helena, upon reading a "romance in real life" about a woman who poisons her mother-in-law and tries to frame her servant, attempts a similar murder of the lover who spurned her, Philip Dunboyne (261-2). For both of Collins' antiheroines to fall victim to the power of printed sensational literature (whether fictional or not), in two novels about how human identity is shaped by competing influences, is no coincidence. These moments represent a sly joke on Collins' part, a way to poke fun at the fears of reviewers even while using those very fears as a means of advancing the plot – and, one suspects, increasing the sensational experience of reading the novel: might a woman consuming the very same novel at the same time use it to plan and execute a real-life murder?

Understanding influence as a phenomenon that is at once invisible and fluid, but also textual and biological (insomuch as the body itself is a textual phenomenon in the genetic tradition, a parchment waiting to be translated into language the lay person can understand), makes a comparison of Collins' early and late fiction most evocative. Section three will argue that the sensation novel recapitulates the mid-century naturalist's struggle to express a materialist philosophy in non-visible, non-empirical terms: both the naturalist and the novelist relied on the problematic relationship between language and object, metaphor and reality. In section four, I

explore the ways in which, like Darwin's tentative and troubled forays into metaphor, Wilkie Collins insisted upon a separation between written language and the natural world as a strategy to undermine the hard determinism of materialist heredity. And in the chapter's conclusion, I draw together these disparate discourses to sketch out the stakes of the rhetorical strategy shared by Darwin and Collins. The earlier of the two novels I will discuss, *Armada* (1866), describes the mosaic of possible influences upon human behavior, and the ultimate impossibility of determining whether any single source of influence, the biological included, trumps any of the others. At the end of his career, Collins shapes the debate according to very different contours in *Legacy of Cain* (1888): by reducing the question of influence simply to biological inheritance and virtuous upbringing, he seems to present a more simplified nature/nurture debate. True to style, though, (and contrary to critical consensus, which reads the novel as a puzzle with a finite if not simple solution to a single question, which of two daughters is actually the daughter of a murderess) I will argue that the "solution" is far less straightforward than it seems.

By eliminating the complicating factors with which *Armada* abounds, in *Legacy* Collins revises his earlier acceptance of the role of biological inheritance, but he also comes to rely on a more fluid notion of reality and thus, we might say, an interpretation of influence that is at once more literal and more metaphorical than its earlier invocation. If *Armada* describes a world in which characters attempt to keep their own criminal, social and biological pasts from one another, *Legacy*'s characters cannot access even their own pasts or unlock their own identities – nor, by extension, can any of us. Darwin's version of the human body, composed of multiple independent cells which run through the same fluid channels and which compose a larger functioning system, gets extrapolated outward to encompass the vessels and conduits of a social system. Nor does Collins' later vision leave his characters with much of an identity to "unlock"

in any case. Whereas the earlier novel endlessly promulgates its obsession with the past invading the bodies and minds of individuals and, cancer-like, replicating itself, *Legacy* both allows for that kind of other-worldly influence and simultaneously reduces the scope of its importance. By constantly undercutting the certainty not of the genetic but of our knowledge of it, our human capability of processing it, Collins echoes Darwin's rhetorical move in *Variation*: he dismantles the literal interpretation of human identity by offering solid critiques of physiognomy, phrenology, resemblance, and a simple correspondence between the genetic past of an individual and the present. In shifting the human body into the realm of the metaphorical, as it were, Collins takes the project of the sensation novel itself to its logical conclusion.

In the sections that follow, I explore the role of metaphor in the writings of Darwin and Collins, as well as within the broader context of the 1860s conversation about sensation fiction. I suggest in this chapter that the debate over determinism and heredity was as much about language and systems of meaning – gothic taxonomies shared by scientific and literary discourses – as about anything else. The critics of sensation fiction who worried about negative influences upon vulnerable readers were, in fact, proposing that this mode of fiction collapsed the space between language and physical reality: reading is directly responsible for dramatic physical effects upon the reader. Indeed, Nicholas Daly correlates the novel to the advent of railway travel, since both produced entirely new and uncomfortable physical and mental effects.⁵⁶ In this sense, the sensation novel becomes both a product of technology and a technology in and of itself, one that contributed to the instability and fragmentation of the modern subject. That a genre could also be a technology, in the sense of *technique* (and in the sense of its early usage as a treatise on the arts), is new neither to modern readers of Walter Benjamin nor to nineteenth-century readers of a popular press that decried the novel form itself

as having too much influence over its (feminized, weak) audience. *Technology* also indicates a very different kind of relationship with the mechanical and the material. I will argue that the literary technique overlaps the scientific *techne* to describe a particular cultural preoccupation with the larger abstract concept of hereditary influence. The sensation novel broadened the scope of, and created space for, a widespread public discourse about *influence*, and it is through this lens that I wish to examine the Victorian attitudes to heredity and hereditary discourse in the sixties and seventies.

II. Thinking outside the tree: Darwinian pangenesis and the crises of materialism and metaphor

Nine years after the publication of *The Origin of Species*, Charles Darwin published one of his longest and least-cited works. *The Variation of Animals and Plants Under Domestication* was intended as a compendium of facts supporting the theory of evolution. Rather than laying out the mechanisms by which variations could occur, the majority of the work is devoted instead to a dry recitation of observations according to species. Darwin himself acknowledged that the work was far less readable than the *Origin*; accordingly, it has been afforded little attention by literary scholars, who have traditionally found far more fertile ground for analysis in Darwin's other major works.⁵⁷ To his own publisher, John Middleton Murray, Darwin sent proofs featuring two different font sizes – the first for summary passages and the second smaller font for the paragraphs comprised solely of details gathered as evidence.⁵⁸ Even in letters to fellow naturalists, Darwin provided rather peculiar instructions on reading this leviathan: to Asa Gray, he simply wrote that the first volume is so dry that “you will not be able to read it” (*Darwin Correspondence Project*, Letter 5649).⁵⁹ He advised J.D. Hooker to skip all of the first volume except the last chapter (on inheritance), which he was to skim, and to skip around in the second

volume (DCP 5680).⁶⁰ To Henry Holland, he wrote that the work is best understood if read in a “detached” way, looking only for method and hypothesis (DCP 5862).⁶¹ And as for many other scientists and reviewers, he urged them simply to read the chapter on Pangenesis and omit the rest.

And yet Darwin was also clear in his correspondence that one piece of this work in particular was just as important to him as his work on natural selection. Indeed, his letters depict a man obsessed with his own theory, a man who refers to it on numerous occasions as his “offspring,” “an infant cherished by few as yet, except his tender parent” (DCP 6167).⁶² He writes to Hooker that he fears his theory of Pangenesis, poorly received by the press, is “still-born,” though he imagines it will at some point reappear, “begotten by some other Father, & christened by some other name” (DCP 5918).⁶³ Darwin deftly displaces contemporary frustrations about the difficulties of predicting the inheritance of traits onto his own parental anxieties about the inadequacies of his textual offspring. Contemporary reviewers, however, were largely indifferent to or unkind about this seemingly bland followup to the most controversial work of its day.⁶⁴ Because the mechanism for genetic inheritance proposed by Darwin is technically and theoretically incorrect, and would be eclipsed by the work of August Weismann later in the century and the rediscovery of Gregor Mendel’s 1860s plant experiments shortly thereafter, both literary critics and historians of science have for the most part ignored pangenesis. In this section, I will argue that paying closer attention to Darwin’s “forgotten child,” published at the height of the sensation fiction craze, reveals the advent of a new, but short-lived, model for how mid-Victorians thought about influence, determinism and materialism.

Variation was originally intended as a companion volume to *Origin*, a publication of the quantities of data Darwin had amassed on natural selection and evolution. Instead, the text focuses almost entirely on the domestic and the domesticated, the “amount and nature of the changes which animals and plants have undergone whilst under man’s dominion” (11). Darwin notes in the first chapter that “Although man does not cause variability and cannot even prevent it, he can select, preserve, and accumulate the variations given to him by the hand of nature in any way which he chooses; and thus he can certainly produce a great result” (14). As we have seen above and in previous chapters, this is hardly ground-breaking material for the father of modern biology. Walker’s extensively popular manual established the same principles, and applied them to humans, thirty years prior, though without the abundant raw data Darwin provided in *Variation*. So why publish two volumes on such well-trodden ground? To understand the purpose and methodology of *Variation*, we must briefly return to the *Origin*. In the first pages of that work, Darwin underscores the conflict between external and internal sources of variation: he concludes that “it is preposterous to attribute to mere external conditions,” as Lamarckism did, the differing structures of similar species (13). Some other mechanism must allow for the internal development of new traits that could be passed down the generations. No naturalist could begin to predict and quantify the multitude of external factors at play at one precise moment or on one particular organism, let alone the multitude of ways in which organisms, varieties and species interacted with one another, in a “natural” or “wild” setting. Or, as Mary M. Bartley notes, “without an organized system of inheritance that remained intact generation after generation, natural selection would be unable to add up any of the small changes to produce large-scale changes in morphology” (310).⁶⁵ If natural selection rested on the mechanism of inheritance, and that mechanism on nothing beyond a handful of observations

which only occasionally proved true, then domestication proved the empty cipher at the center of evolution. Careful observation of the domesticated plant proved “how unimportant the direct effects of the conditions of life are in comparison with the laws of reproduction, and of growth, and of inheritance” (*Origin* 20), precisely those processes which Darwin failed to uncover in the *Origin*. Interestingly, the *Origin* frames the study of variation, genetic modification, and coadaptation not within Darwin’s beloved wild finches, observed in Galapagos while working as the naturalist aboard the *HMS Beagle*, but with “a careful study of domesticated animals” and “cultivated plants” – in other words, the fruits not of *natural* selection but of *artificial* selection. Only by establishing a “strong principle of inheritance” (as opposed to Lamarckian “soft” inheritance) within controlled conditions would it be possible to theorize about those same mechanisms in uncontrolled or “natural” settings (14).

Variation sets out to rectify that problem by proposing the theory of pangenesis, which Darwin repeatedly underscores as “a mere hypothesis” but something *akin* to how the mechanism of inheritance must work.⁶⁶ In order to do so, Darwin had to make very different kinds of connections than those laid out in his evolutionary theory. Evolution was entirely reliant on a predictable heredity with its own sets of laws and its own exceptions to those laws (mutations, adaptations), but evolution is as much the study of large populations as of individuals. To prove the larger theory, he had to take a step back, narrow down the time-scale, and make an attempt to sketch out one possible solution for the smaller-scale process: not how species and varieties are formed, but how families and individuals come to be. Ironically, evolution relies on the logic of direct, lineal descent: despite Darwin’s original claim that “by crossing we can get only forms in some degree intermediate between their parents” (*Origin* 26-7), the *Origin*’s only illustration clearly demonstrates the logic of the genealogy or family tree:

The green and budding twigs may represent existing species; and those produced during each former year may represent the long succession of extinct species. At each period of growth all the growing twigs have tried to branch out on all sides, and to overtop and kill the surrounding twigs and branches, in the same manner as species and groups of species have tried to overmaster other species in the great battle for life. The limbs divided into great branches, and these into lesser and lesser branches, were themselves once, when the tree was small, budding twigs [...] As buds give rise by growth to fresh buds, and these, if vigorous, branch out and overtop on all sides many a feebler branch, so by generation I believe it has been with the great Tree of Life, which fills with its dead and broken branches the crust of the earth, and covers the surface with its ever branching and beautiful ramifications. (113-4)⁶⁷

Life as we know it is no more than a family tree, though it must be condensed beyond what our imaginations are capable of. Eventually, the intermediate species, the direct products of blended inheritance, die off and distinct varieties remain. The size of a population, represented on the tree as an individual, indicates its evolutionary success (*Origin* 110). Ultimately, evolution is based on literal family ties between massive populations: “It is a truly wonderful fact,” Darwin writes, “– the wonder of which we are apt to overlook from familiarity – that all animals and all plants throughout all time and space should be related to each other in group subordinate to group, in the manner which we everywhere behold [...]” (*Origin* 112-3).

The “simile” of Darwin’s tree serves as a confusing visual prop to connect human species to other animals; not only the significance of its use in pedigrees and genealogies but its religious and philosophical significance makes it a proper choice for a representation of lineal descent.

The two-dimensional nature of the metaphor also helps to emphasize evolution's rootedness in and across time. Just as a great tree takes years to mature from a small seed, the human perspective must shift in attempting to imagine the lifetime not of the individual but the species:

If the number of the species of a genus, or the number of the genera of a family, be represented by a vertical line of varying thickness, crossing the successive geological formations in which the species are found, the line will sometimes falsely appear to begin at its lower end, not in a sharp point, but abruptly; it then gradually thickens upwards, sometimes keeping for a space of equal thickness, and ultimately thins out in the upper beds, marking the decrease and final extinction of the species [...] for the process of modification and the production of a number of allied forms must be slow and gradual [...] like the branching of a great tree from a single stem. (254-5)

It is nonetheless worth noting that even in this most sublime of imaginings, when the human mind attempts to encompass generations upon generations, Darwin remains firmly rooted in the textual and the graphic, describing in minute detail a mundane drawing of a line as the most accessible way into the logic of incomprehensibly large swaths of time and space.

But for Darwin, the implied relationship between natural and artificial selection, though necessary to establish in order to demonstrate both the existence and the methodology of the former, is nonetheless rather fraught. Whereas modern readers, schooled in classical theories of genetics, would perhaps expect to find the family tree or pedigree represent artificial or human-controlled selection more accurately than the random and chaotic processes of natural selection, this was not the case. Darwin formulated his theory of heritability not in terms of linear processes that can be charted for ease of visual reference, but in terms of fluidity and the vagaries

of human will – the model of influence so important to mid-century literary debates. Essentially, *Variation* posits that it is impossible to understand the mechanisms of natural selection without first mastering how the process works in human-controlled realms of agriculture and farming (and, by extension, in humans themselves). In the work's introduction, Darwin is quick to emphasize that "man has no power of altering the absolute conditions of life" and therefore cannot cause variation in and of himself (2). However, he says, man can control specific environmental factors that can lead to variation, and can select for beneficial variations; therefore humankind "may be said to have been trying an experiment on a gigantic scale; and it is an experiment which nature during the long lapse of time has incessantly tried. Hence it follows that the principles of domestication are important for us. The main result is that organic beings thus treated have varied largely, and the variations have been inherited" (3). Indeed, results of human interference in domestication, both conscious and unconscious, are not only theoretically possible but empirically observable.

The key difference, the factor that brought so much controversy to the *Origin*, remains a sticking point in the early pages of *Variation*. There is a fine line between human shaping of varieties and human control over them. Out of (human) context, many varieties would appear to be absurd in the natural world: "As the will of man thus comes into play, we can understand how it is that domesticated breeds show adaptation to his wants and pleasures. We can further understand how it is that domestic races of animals and cultivated races of plants often exhibit an abnormal character, as compared with natural species; for they have been modified not for their own benefit, but for that of man" (4). Breeding makes the organism and variety unfit for nature, and unlikely to survive competition without human protection. Darwin, having already debunked the fixity of species as part of God's special creation, draws attention here to the fact that

breeding – for show, for survival, or for scientific curiosity – constantly meddles with what conservatives and Paleyites were still referring to as the “divine plan.” Human intervention in the formation of varieties is both “un-natural,” or perhaps anti-natural, and unavoidable. At the same time, however, Darwin insists that the analogy between artificial and natural selection holds true:

The term “natural selection” is in some respects a bad one, as it seems to imply conscious choice; but this will be disregarded after a little familiarity [...] The term is so far a good one as it brings into connection the production of domestic races by man’s power of selection as an intelligent power [...] I have, also, often personified the word Nature; for I have found it difficult to avoid this ambiguity; but I mean by nature only the aggregate action and product of many natural laws, - and by laws only the ascertained sequence of events. (6-7)

According to the analogy, natural selection requires an intelligent power with will or “something akin to it,” to recall the phrase Darwin applies to pangenesis. In artificial selection, human will interacts with unpredictable forces in the natural world in order to enact change. In natural selection, on the other hand, these same unpredictable forces act *as if they are*, or perhaps *in the same manner as*, human choice. In other words, two opposing forces stand in for one another rhetorically. Of course, this cannot be true in any sense we can understand. If human breeders create varieties that are unfit for survival in the natural world, then a purely random natural selection can only be understood within a temporal dimension. If time is imagined as a two-dimensional line on paper, a variation that has arisen to the level of a sustainable population can only exist within the environment as it functions at that point in time. At any other point, the circumstances and needs of other organisms would alter the environment in ways unsuitable to said variety.

No matter how Darwin situates his argument, it seems difficult to avoid the determinism that dominates the first half of the century. If he argues that natural selection is controlled by choice – of a divine power, or of an unnamed force – then its randomness and purposelessness get subsumed by a divine order. Arguing that the universe fits together as it does because it is the only logical possibility, and that that balance is constantly in flux, still leaves itself open to the charge of determinism. Ironically, proposing artificial selection as a model, and emphasizing the tenuousness of the connection to natural selection, both allows for the religious interpretation of the Paleyites *and* offers an alternative to it. Human choice is unlimited, and demonstrating the very abnormality and unfitness of its products in breeding is the only way Darwin can conceive of to explain a non-deterministic natural world. Yet in the work's "Concluding Remarks," even after articulating a theory of *how* reproduction works, Darwin once again weakens his stance even further:

However much we may wish it, we can hardly follow Professor Asa Gray in his belief 'that variation has been led along certain beneficial lines,' like a stream 'along definite and useful lines of irrigation.' If we assume that each particular variation was from the beginning of all time preordained, the plasticity of organization, which leads to many injurious deviations of structure, as well as that redundant power of reproduction which inevitably leads to a struggle for existence, and, as a consequence, to the natural selection or survival of the fittest, must appear to us superfluous laws of nature. On the other hand, an omnipotent and omniscient Creator ordains everything and foresees everything. Thus we are brought face to face with a difficulty as insoluble as is that of free will and predestination. (516)

While still allowing for the possibility of a creator, Darwin emphasizes the “plasticity” of natural forms and the “redundant,” ubiquitous processes of reproduction and replication as elements of uncertainty and flux. Nonetheless, the ineffective last sentence recapitulates the philosophical and ontological struggle apparent in the earlier analogy.

This conflict between human will and “natural” will is framed as a literary device but actually lies at the heart of *Variation*. Instead of imagining the rigidity of his earlier tree-graphs, Darwin asks his readers to imagine his theory in comparison to a series of far more flexible and less linear scientific concepts. Each of these indicates that Darwin has shifted his understanding of causality towards a concept of influence, as both a material and a fluid entity that helps to shape outcomes without succumbing to hard and fast determinism. Although we tend to read Darwinian genetics in terms of its antecedents, the social Darwinists who reshaped his theories to fit a solidly deterministic model, the text itself reveals a different picture. In the same paragraphs in which he attempts (rather unsuccessfully) to metaphorize natural selection, Darwin draws on three different scientific models that belie the hierarchized, linear logic of the pedigree. The first of these is chemistry; in defending natural selection as a metaphor for choice, he notes that “No one objects to chemists speaking of ‘elective affinity;’ and certainly an acid has no more choice in combining with a base, than the conditions of life have in determining whether or not a new form be selected or preserved” (6).⁶⁸ The second connects more overtly to the classic definition of influence described in the introduction: “For brevity sake I sometimes speak of natural selection as an intelligent power; - in the same way as astronomers speak of the attraction of gravity as ruling the movements of the planets” (6). And when explaining the role of hypothesis in his work, he draws on early physics: “The undulations of the ether and even its existence are hypothetical, yet every one now admits the undulatory theory of light” (9).⁶⁹ Not coincidentally,

each of these scientific realms relied on notions of a fluid world, one in which attractions, actions and reactions occur within an invisible medium. (And each of them shared a theoretical past with the more often-cited mesmerism, also based on the circulation of forces or particles within a fluid medium.⁷⁰) What these three scientific references share is an ability to explode the Chain of Being, the links and bonds upon which Erasmus Darwin's Romantic world-view rested: to move, as it were, from two dimensions to three or even four, without fully discarding the notion of determinism. In this articulation, the tree – flat, hierarchical, and overdetermined by biblical and philosophical symbolism – is no longer sufficient to describe a natural world that extends to both telescopic and microscopic views of time and space. What wonder Darwin can no longer formulate a coherent way to think about cause and effect, for the world no longer seems to work in such simplified ways. Without knowing about or being able to measure the fluid medium around us, the forces and counterforces acting upon us and one another, it is difficult to predict how we are acted upon, or how we may act upon others.

Thus I argue that the dozen or so years following the publication of the *Origin* constitutes a crisis of materialism: for Darwin, at least, though for many of his contemporaries as well. This crisis is rooted in scientific attempts to map out the causes of plant and animal variation and of human behaviors and motivations. Though Darwin's voyage on the *Beagle* was certainly one seeking to map the world, the paradigm had shifted by the sixties (and would shift back once more a century later as geneticists raced to map a genome, and eventually the human genome). Chemical substances, atoms, waves: collectively these discoveries forced scientists to reconsider linear models of imagining biology, geology, astronomy, and more. If the *Origin* forced Darwin to "thicken" his line of descent and to shrink the scale so that each twig on his tree now represented tens of thousands of years instead of a single generation, *Variation* forced him to

think outside of the tree entirely. Comtean positivism described the moment when metaphorical worldviews gave way to safe, trustworthy empiricism – the cold, hard facts of science. But in the 1860s, the “physical” itself had to be redefined to accommodate new modes of observation. This crisis also reached into the literary realm, of course, and it is no coincidence that the 1860s also saw the heyday of sensation fiction, a genre devoted to domesticating the Gothic in every sense of the term.

Before I return to the connection between Darwinian variation and sensation fiction, however, it will be useful to examine more closely the mechanisms of pangenesis – and to reconsider the stakes of scientific metaphor. The chapter on heredity at the end of the first volume had established that even “trifling peculiarities” are transmitted through microscopic cells and emerge at some point during the process of development and aging; “the real subject of surprise is, as Sir H. Holland has well remarked, not that a character should be inherited, but that any should ever fail to be inherited” (V2, 10-11).⁷¹ But if characters are nearly always inherited, then there must be some reason why certain characters don’t manifest themselves for several generations; some traits formerly considered monstrosities or mutations might actually be due to latency. Latency is explained in terms of textuality; the body is a text written over and “crowded with invisible characters,” some of them coming from “a long line of male and female ancestors separated by hundreds or even thousands of generations from the present time,” and “like those written on paper with invisible ink, all lie ready to be evolved under certain known or unknown conditions” (2.80). Darwin also found that certain characters may be “fixed” in a species over many generations, and that some individuals are “prepotent in transmitting their likeness;” though he could find no law to determine the prepotency of an organism, he concludes that a pure-bred form tends to have more heritable force than a “mongrelized” one (2.89). He also

rejects the contemporary theory that almost all traits are sex-linked, noting that there are exceptions to the rule but that “it is an error to suppose that the male transmits certain characters and the female other characters” (2.432). Thus while Darwin does not reject blended inheritance, in which the offspring’s traits are a combination of those inherited from each parent, he does indicate that it doesn’t always seem to hold true.

Though it at first seems odd that Darwin would choose to attach his groundbreaking theory of transmission to a work primarily on plant and animal breeding, he was in actuality positing a connection between sexual and asexual reproduction that was both homologous and literal: “The retention of free and undeveloped gemmules in the same body from early youth to old age may appear improbably,” he notes, “but we should remember how long seeds lie dormant in the earth and buds in the bark of a tree” (2.453). At the end of the chapter, he claims that “When we hear it said that a man carries in his constitution the seeds of an inherited disease, there is much literal truth in the expression” (2.483). *Variation* presents the two modes, hitherto considered separate, as part of a single larger process. Using the phenomenon of parthenogenesis, by which females produce embryonic offspring without male fertilization, as evidence for the inherent connection between the two, Darwin describes their chief difference in terms of outcome: “beings produced sexually are much more liable to vary than those produced asexually” (2.432). In the latter, the process of “budding” produces miniatures of the adult organism. In sexual reproduction, the process happens on a much smaller, invisible scale: “the whole organism, in the sense of every separate atom or unit, reproduces itself” (2.429). Cells divide and throw off gemmules or germs, which “circulate freely throughout the system” and eventually develop into tissues and organs (2.448); they may also remain dormant within the body for years or even for generations – not a strictly preformationist construction, but one that

nonetheless allows for the appearance of characteristics after several generations. Darwin himself notes that his theory looks suspiciously like Bonnet's earlier preformationism, but stresses that pangenesis functions in "real-time" rather than in the static time of determinism, which is immune to change and variation (2.449).

Darwin's chosen terminology further underscores the connections between the plant world, where asexual reproduction was thought to be most common, and the reproductive processes that shape human identity. "Germ," "germinal matter," and "gemmule" are all used more or less interchangeably in his chapter. The former was used as early as the mid-seventeenth century to indicate the "rudiment" from which a new being could develop, in particular within the female (OED). By the early eighteenth century, Linnaeus was using "germ" to stand in for the ovary or the seed. And August Weismann would keep the terminology for his own more successful theory of heredity, the germ-plasm. Similarly, the slightly more modern "gemmule" comes from the Latin for bud and referred mainly to plant and animal embryos, rather than any part of the human anatomy. (Darwin recapitulates his grandfather's tactic of anthropomorphizing the "lower" species while simultaneously zoologizing and/or botanizing humans.) Eventually, the argument continues, "germinal matter" will accumulate into "ovules" and sperm, each of which carries the information for every character in the parent. The cycle continues: before cells undergo replication, they "throw off minute granules or atoms" – the gemmules – "which circulate freely throughout the system, and when supplied with proper nutriment multiply by self-division, subsequently becoming developed into cells like those from which they were derived" (2.448). Thus the theory accounts for soft *and* hard heredity, since an environmentally altered cell or set of cells would also throw off altered gemmules, which would then be passed on to potential offspring.⁷²

An 1868 exchange with J.D. Hooker following the publication of *Variation* sheds an interesting light on how a theory of cellular reproduction might participate in and contribute to a larger set of philosophical questions about homology and materialism. Hooker, noting (correctly) that Darwin's explanations are still "hazy," even in the printed version, cites Thomas Huxley's proposal that (in Hooker's words) "the cell might not contain germs or gemmules, but a potentiality in shape of a homogenous mass, as to whose exact future condition, or the exact future of whose elements depended on an impulse [communicated] at [the] moment of evolution" (DCP 5935).⁷³ Though he fully accepts the doctrine of inheritance and the concept of at least a "potentiality," he questions whether Darwin's gemmules are literal or analogical:

I do not see what you gain by putting it in an imagery of germs and gemmules, analogous to a chemist's atoms. A chemist's atoms are useful imagery – for they convey definite ideas of *proportions* & have an exact meaning as *relative* values – If Biology enabled us to convey definite ideas through your gemmules, they would have their use – but inasmuch as organisms are not given to unite in definite proportions I do not see what you gain [...] The "throwing off gemmules" is hard to hold in head, as a real vital process. – if you say that each cell "*diffuses an influence*" that is intelligible!!! (DCP 5935)

In response, Darwin writes that the language of "potentiality" and "influence" gives him "no positive idea." Only when the problem is cast in terms of cells or atoms does he "gain a distinct idea" of how the mechanism might work (DCP 5951).⁷⁴ Hooker nonetheless remains steadfast, writing that "I rather suppose that they maybe [sic] like minutes of time, or inches of space, or any other *purely arbitrary quantities*" (DCP 5971).⁷⁵ This moment represents another crisis of metaphor and materialism for Darwin. Though at other points he seems willing to entertain

possibilities similar to but not quite the same as pangenesis – indeed, he seems quite confident that future work will greatly improve his still-vague theory – the material reality of “influence” is the linchpin upon which future work must rest.

As in the earlier conflict over the metaphorical connection between natural and artificial selection, the most important thing for Darwin is to create a theory broad enough to explain wide swaths of data and conjecture without disregarding any scientific evidence. The strength of pangenesis is its ability to *connect*, to bridge gaps between previously unconnected data: particularly on “bud - & seminal – variation, on inheritance, reversion, effects of use and disuse, &c.” (DCP 4837).⁷⁶ The hypothesis of pangenesis was thus both radical and strangely conservative. This is perhaps not entirely surprising since it attempted to marshal recent developments in biology and related fields in order to explain a long-standing subject of folk knowledge and speculation. Darwin’s chief contribution to the nascent field was an entirely materialistic explanation for how character traits are stored as information in the body and how they migrate from one generation to the next. However, this radical materialism rested, as I have shown, on a set of much older, even outdated and long-dismissed, assumptions and paradigms, in particular a material theory of influence which, like pangenesis, relied on the circulation of indefinable particles within a fluid medium.

In an early letter to his wife, a young Charles Darwin wrote,

Hensleigh thinks he has settled the Free Will question, but hereditariness practically demonstrates, that we have none whatever. One might have thought that signing one’s names to one’s letter was an open point, but it seems it is all settled for us [...] I daresay not a word of this note is really mine; it is all hereditary,

except my love for you, which I shd think could not be so, but who knows? (DCP
1176)⁷⁷

Though framed as lighthearted domestic joking, this missive tells us quite a bit about what drove Darwin towards his obsession with pangenesis, and for how long it had been one of the questions at the heart of his research. If randomness and unpredictability lie at the heart of natural selection, how can the obvious patterns of hereditary transmission exist at the same time? And once we accept that not only physiological but also behavioral and psychological traits are heritable, to what extent can free will exist at all? The poignant last line, which attempts to laugh off the controls of heredity, betrays a deeper anxiety about how this discourse might apply to human emotion – an anxiety that uncannily anticipates the concerns of Wilkie Collins in *Armada*. In the second half of the chapter, I will explore the reasons why sensation fiction was poised to provide its own answers to these same questions, and how it attempted to do so, via Collins' early and late fiction.

III. Crises of authority: The debate over sensation fiction

Scientific struggles over materialism revealed a gap between language and object, sign and signified. Darwin's struggles to apply workable metaphors to his own theories inevitably broke down in unsatisfactory ways, leaving him and his contemporaries with a certain belief in a material mechanism of heredity, but without the language to describe that mechanism in meaningful ways. The sensation novel, according to popular narrative, approached the same problem from the opposite angle: superabundant language on the page appeared to result in changed behavior by the consumer. The problem here lies in the impossibility of codifying processes in understandable terms: not moving from the body to the page, as Darwin was trying to do, but traveling from the page to the body. Both scientists and critics were attempting to

eliminate the gap between language and reality. But, I maintain, the space between language and meaning is the crux of determinism itself. A world with no space for interpretation is at once fully material and fully determined. Popular debates about the influence of sensation fiction were actually critiquing the genre for collapsing the space between the reader and the page. In reality, the fiction, and particularly that of Wilkie Collins, was doing something much different.

Examining an 1862 piece by James Hinton in *Cornhill Magazine* will help to cement the relationship between science, literature and influence in the popular imagination of mid-century Britain. In “The Fairy Land of Science” (not to be confused with Arabella Buckley’s later book for children by the same name), Hinton proposes that the “old” fairy tales (most of which had been popularized and/or globalized in the previous hundred years) have a “prophetic lustre” that seem to predict the future in supernatural ways, though the reality of scientific discovery always tempers the fairy visions with gloom. Hinton writes,

Our realization of the dream of fairy tales is but another dream; it is a revelation, an onlooking, and no end or substance. A divine fatalism is upon the world, and upon man in his dominion over it: - a beneficent necessity, which forbids the lower to be grasped save through the recognition of a higher. The achievements of which Science boasts, and justly boasts, as its peculiar glory, are permitted to it only by the adoption of principles which compel it to bear witness to a truth beyond itself. By science man may control nature, and work marvels that outrival magic, but in the very act he concedes that the world is not what it seems. (37)

Surprisingly, although Hinton revels in the “rich mysteries” of nature, the paragraph above is not an apologia attempting to reconcile religion and science – at least, not in any definition of those terms which Victorians would have recognized. More than anything, Hinton’s eidetic prose

revels in what both literature and scientific discovery have the power to reveal: a glimpse into the relationship between the visible and invisible forces that drive the world as we know it. The discovery of the laws of thermodynamics earlier in the century reduced some of that mystery, “enabling us to regard all material changes, of whatever kind, as exhibitions of a common fact [...] And this activity we saw reason to believe never alters in amount; never begins really afresh, nor comes to a true end; but only passes from one form to another, maintaining a constant equivalence through all seeming changes” (37). In Hinton’s hands, the laws of conservation of energy and the interchangeability of forms unite all beings in the universe. Using the same set of metaphors Darwin used to describe the fluidity of forms - telegraphy and magnetism, chemical affinities, and the transformation of matter into solid, liquid and gas – means, for Hinton, that “All things put forth universal relations, and assume a weird and mystical character” (38).

But whereas Darwin celebrates the ultimate materiality of all forces, Hinton flips the assumption on its head and comes to something more akin to Platonic idealism:

The objects which surround us lose their substantiality when we think of them as forms under which something which is not they, nor essentially connected with them, is presented to us; something which has met us under forms the most unlike before, and may meet us under other forms again. In short, all nature grows like an enchanted garden; a fairy world in which unknown existences lurk under familiar shapes, and every object seems ready, at the shaking of a wand, to take on the strangest transformations. (38)

Ultimately, science is only concerned with “phenomena,” and our understanding of those phenomena is limited to what is measurable. The radical empiricism of science leads us into a fairy world in which all material existence bleeds together. The fundamental assumption about

the materiality of existence is the same, but Hinton draws quite different philosophical and ontological conclusions. “Force is a sensation of our own,” he writes, “and is no more to be attributed to the objects in connection with which we feel it, than are the brightness of a colour or the sweetness of a taste” (41). By recuperating material forces into the human sensorium, Hinton’s argument suddenly swoops from radical materialism to its very opposite, a human-centered view in which the subject literally creates the world around her simply by observing it and being present within it. In this formulation, “force” is evidence not of the invisible powers of the natural world which direct human action, whether the subject realizes it or not, but rather a display of the spectacular powers of the independent individual.

Hinton’s unwavering faith in the power of human will may seem like a strange way to introduce contemporary conversations about the power of fiction and outside influences upon human behavior, but it is valuable in that it allows readers to step back and contextualize the largely different conclusions that stemmed from theories of force and influence. What unites Hinton’s transcendentalist piece with Darwin’s work is a fascination with the fluidity of the natural world, and with the idea of “nature as a perennial fountain of activity, ever flowing forth, ever returning, inexhaustibly; which recognizes in the endless series of her creations continually fresh forms of the old powers; and finds in the simplest objects storehouses and reservoirs of the most subtle energies” (37). The concept of the fluid came to represent not only the old magnetic and astral influences upon human behavior, but also a new demonstration of the immense powers of the human spirit and intellect upon the material world. No matter which direction the power flows toward, the connection between the newly available workings of the material world and the invisible, spiritual world of the human intellect was no longer contested; the main question was to what extent the individual was merely participating in much larger forces or actually

taking a hand in controlling them. The fact that Hinton connects this power to literature is, of course, no accident. As Nancy Armstrong notes, the novel form is intimately connected to the evolution of individual subjectivity in the late eighteenth and nineteenth centuries.⁷⁸ For arguably the first time, readers experienced extended meditations on the interactions between the interior and external lives of a subject, which prompted them to meditate in turn on their own subjectivity, and particularly on the differences between what is visible and what is not, what is material and what is not. As I will argue below, the reason the sensation fiction genre was so scandalous for contemporary reviewers is that it appeared to use scientific means to justify its violation of the fundamental connection between fiction and the freedom of will in the individual.

Historians of sensation fiction have long been interested in the shape and structure of the genre, its effects on reader's minds and bodies, and the metaphors governing the very public discussions surrounding it. Henry Mansel's by now famous claim in the 1863 *Quarterly Review* that sensation fiction "preach[es] to the nerves instead of the judgment" and that it "play[s] no inconsiderable part in moulding the minds and forming the habits and tastes of its generation" summarizes in no uncertain terms the basic anxieties among critics of the genre: sensation fiction was dangerous because it catered to the lower classes, the body instead of the intelligent mind, but also because it was hyper-effective in doing so (482). The nerves, as Nicholas Daly has aptly noted, were thought to function in ways similarly to the new technologies of the railroad and the telegraph: in the novel, he writes, "history becomes somatized; the body-made-nervous acts as a recording surface for the protagonist's experience" (462-3). By collapsing time and space, the frighteningly modern technologies of the novel, the railway and the telegraph created a different relationship between the external world and the internal subject, creating a new kind of body that

“is experienced as the interface between the new technology and nature, as both a potential machine itself, and as a resistance to the modernizing effects of the machine” (468). The subject in this system is passive, over-stimulated, at the mercy of both the environment and the mechanisms of the body: in other words, experiencing the conflict between the earlier epistemology of liberal individualism and the modern automaton at the mercy of his own invisible physiological networks.

Nor is Daly the only critic interested in the structural role of connectivity within the genre. Jonathan Loesberg has argued that sensation fiction followed the Jamesonian relationship between structure and ideology; a fear of the erosion of class boundaries helped to shape what he calls “the logic of inevitable sequence” in the genre.⁷⁹ Generally depicted as “either a chain made of links or as a providential unfolding,” the logic of suspense either upholds a united and self-governing nature, as in the first instance, or else supports an “interruption” of natural law, as in the second (126). In either case or in both cases, the logic of suspense ultimately matters more than any outside meaning; thus, the formal elements of the text are strangely disconnected from the thematic elements, resulting in a “willed nonseriousness” in the genre (133). In Loesberg’s argument, as in Patrick Brantlinger’s earlier argument about the displacement of narrative authority in the sensation novel, the deterministic nature of the text empties all meaning from the narrative itself.⁸⁰ Similarly, Richard Nemesvari argues that the sensation novel was responding to an epistemological crisis within the traditional realist novel.⁸¹ Contemporary critics established a particular view of sensation fiction as “lesser” fiction as part of “an essential, constitutive strategy which reified ‘the realistic’ in ways which had been unachievable before” and thus constituted the readers of realistic fiction (though not sensation fiction) as ethical middle-class individuals (17).

These kinds of critical arguments play into an oppositional logic that ignores Brantlinger's notion of the hybridity of this particular genre, placing the sensation novel squarely against the traditional mimeticism of realist fiction. The feminist work of the late eighties and early nineties on sensation fiction helped to solidify its alliance with a longer tradition of the gothic. In *Dead Secrets: Wilkie Collins and the Female Gothic*, Tamar Heller argues that Collins' work in particular but sensation fiction at large falls into the tradition of the female Gothic, begun during the French Revolution as a subversive response to "the troubled politics of domestic ideology" (14). Collins straddles a fine line between recasting gender identities in unconventional ways and positioning himself in a place of professional privilege based on his position of white upper class male, but nonetheless relies on the Gothic conventions of the legal and economic containment of women. Of course, casting sensation fiction as a genre in opposition to realism, rather than as a subgenre or related genre, ignores the fact that sensation fiction is neither more nor less realist than its predecessor, if we define that mode as having a particular relationship to reality or as performing a particular kind of mimeticism. It is worth separating the discourse surrounding sensation fiction from the fiction itself in order to reveal more clearly, as Brantlinger does, the fears surrounding the inadequacies of realism that got projected onto sensation fiction.

Ultimately, Jenny Bourne Taylor's conclusion that "The sensation novel was seen as a collective cultural nervous disorder, a morbid addiction within the middle class that worked directly on the body of the reader and as an infection from outside, continually threatening to pollute and undermine its boundaries through this process of metaphoric transference and analogy" is most productive in any attempt to sort out contradictory critical attitudes toward the genre in both the 1860s and the 1980s and 90s (4). For Taylor, the ways in which the genre was

able to “generate strangeness within familiarity,” both thematically and generically, spoke to Victorian anxieties about the fragility of the coherent, subjective identity (7). Importantly, she identifies debates about inheritance and family relationships as a key contributor to these anxieties, noting that the paradigm of heredity positions the (incoherent) self as “a collection of physical signs whose meaning is uncertain; a subjectivity struggling to gain coherence, yet bearing secret and forgotten traces” (64). But whereas Taylor claims that Collins’ novels “disrupt the fixed relation between sign and referent,” I will argue that Collins actually attempts to *restore* the relationship that had already been posited as broken by critics (15). The process of “transference” she describes is one that is presumed to be dangerous for the typical consumer of sensation fiction primarily because it is *too* potent, because it brings the world of the novel too close to the reader’s mind and body. Collins often mocked reviewers’ obsession with the monstrous possibilities of this kind of transference, as I described in the introduction to the chapter, but his emphasis on uncertainty does not disrupt the structure of the sign in quite the same way reviewers old and new have assumed. The final section of the chapter will illuminate Collins’ strategies as a writer, strategies which actually resist the kind of relationship Taylor describes and in doing so opens the door to a more nuanced, less purely “gothic” view of influence and determinism.⁸²

In the remainder of the section, I return to the most well-known and most often-quoted piece on sensation fiction in the Victorian press, Henry Mansel’s article in the 1863 *Quarterly Review*, which helped to shape countless opinions of the genre and construct the parameters of the public debate. Mansel’s argument, based as it is on connectivity, reveals his own anxieties about the threat sensation fiction poses to the mimetic relationship between thing and depiction of that thing, between sign and object. He notes that “Proximity is, indeed, one great element of

sensation. It is necessary to be near a mine to be blown up by its explosion; and a tale which aims at electrifying the nerves of the reader is never thoroughly effective unless the scene be laid in our own days and among the people we are in the habit of meeting” (488-489). To be sure, this is not praise for the genre’s particular mode of realism, the reader understands, but rather a critique of its manipulation of realism to cheap effect: “The man who shook our hand with a hearty English grasp half an hour ago – the woman whose beauty and grace were the charm of last night, and whose gentle words sent us home better pleased with the world and with ourselves – how exciting to think that under these pleasing outsides may be concealed some demon in human shape, a Count Fosco or a Lady Audley!” (489). The genre is as dishonest as the “proper” men and women it portrays; like them, it masquerades as legitimate fiction worthy of the middle and upper classes – and, like the characters within, its illegitimacy eventually shines through (with the help, of course, of wise reviewers like Mansel).

But proximity presents a particular problem for Mansel. He levels the commonplace criticism that sensation fiction emphasizes plot over character, but character presents a conundrum of its own that underscores the critical problem with the genre’s stance toward determinism. On the one hand, the characters within a sensation novel are not what they seem: “Personality,” he claims, “has an additional advantage, resembling that which Aristotle attributes to the use of metaphors in rhetoric. It gives rise to a kind of syllogism, whereby, without too great an exertion of thought, the mind of the reader is enabled to conclude that this is that” (489). At the same time, the genre is riddled with flat characters who are defined by a single sin or trait; by making readers familiar with that trait personified, they are more prone to accept it and eventually emulate it (494-5). Characters are either (over-)determined by a single trait, or they are insidiously disguised as one thing (upright English people) and represent another (those who

behave in ways unworthy of their class or title). The genre is at once not realistic enough and overly realistic; it both personifies metaphor and undermines it by insisting on the logic of both/and. Whereas Aristotelian metaphor is “the application of an alien *name* by transference” (my emphasis) – i.e., A is *like* B so we can call it B, even though we understand that A is still, in fact, A – sensation writers ignore the aspect of metaphor that insists on transference of name only: A and B share characteristics; therefore A *is* B and thus we may question its very A-ness. It weaves the real with the fictional until even a discerning reader, but especially those readers whose faculties are already weakened by virtue of their class status and gender, cannot determine the difference between fiction and reality. Lydia Gwilt and Helena Gracedieu read about criminal acts and attempt to close the distance between the page and their own lives – and there is no guarantee for a critic like Mansel that readers of Collins might not try to do the same.

Ultimately, Mansel’s critique of sensation fiction rests on the fact that it is *too near* – too close to the worst parts of the crime sheets; too easily accessible via periodicals, circulating libraries, and railway bookstalls; too close to readers’ psyches and bodies: “Regarding these works merely as an efflorescence, as an eruption indicative of the state of health of the body in which they appear, the existence of an impure or a silly crop of novels, and the fact that they are eagerly read, are by no means favourable symptoms of the conditions of the body of society” (512). The symptomatic nature of the genre doesn’t allow for the sanitized distance of the realist novel, nor does it allow its characters space to redeem themselves from the vices they personify. Like the newspaper, “The material part of it is a fixed quantity, determined by rigid boundaries of space and time; and on this Procrustean bed the spiritual part must needs be stretched to fit” (484). Mansel is describing the world of the sensation novel as one that is formally and spiritually determined: by current events, by flat characterization, and by the inflexible

relationship between the material and spiritual worlds, between reality and novel, novel and reality. Collins, I will argue in the next section, was all too aware of the critical conversations surrounding sensation fiction in the 1860s. His work takes advantage of the presumption that the genre reduces the space between reader and text, and he playfully creates in *Armada* the very crisis Mansel and his contemporaries were trying to imply. The crisis of proximity belongs not to the reader being threatened by the text but to the Allan Armadales themselves, and the reader becomes complicit in sorting out their improbable fates – and the extent to which those fates are pre-determined.

IV. The “Shadow of the Past” meets the “Shadow of the Future”: Determinism and metaphor in *Armada*

Armada, published serially between 1864 and 1866, presents its readers with a tangled web of influences acting in competition with one another, from the astral superstition espoused by Ozias Midwinter, to the “inevitable sequence of events” described by Loesberg, to sexual influence perpetrated by powerful (and therefore dangerous) women, to the common materiality of every day life. The reader’s task is to untangle the complicated knots of the plot in order to decide which, if any, influences act upon each character, and if any general principles can be extracted from the text at all on the question of free will and determinism. Indeed, Collins depicts a world in which the very definitions of “free will” and “determinism” get called into question, a world in which neither alternative is purely available to the reader. But what might it mean to claim that *neither* of these alternatives is true? How can Collins escape the philosophical and logical absurdity inherent in the claim? In the section that follows, I will argue that *Armada* explicitly works against reviewers’ fears of “proximity” by opening up meaning, or rather, by presenting a surfeit of alternatives which must compete for attention and supremacy. Allan

Armadales and Ozias Midwinter, the other Allan, provide us with two models of failed readers – but it does not follow, as Taylor claims, that pure indeterminacy triumphs over meaning. The former fails to question anything in front of him, accepts his first instincts immediately, and lives purely for his own gratification. Ozias, on the other hand, lives the tortured life of he who seeks for meaning at all costs: meaning for him is a burden, a curse to be overcome, and insurmountable barrier that nonetheless saves his life from the absurdity of nihilism. Ultimately, the novel delivers to its readers a method like Darwin's, one that opens up a space for simultaneous but contradictory truths to operate in conjunction with one another and, in doing so, closes off the possibility of absolute determinism without fully endorsing the mid-Victorian notion that the individual is in full control of him- or herself.

The novel's prologue, set in 1832 in the German spa town of Wildbad, sketches not only the complicated back story but also sets the stage for the battle between predetermined characteristics and the (questionable) power of free will. The reader comes face to face with what Kimberly Harrison and Richard Fantina call the "viral" nature of the sensation plot, as a single Allan Armadale tells his story and reveals that there are (or were) four more men bearing his name: the first, his godfather and benefactor, who left his property in Barbadoes and England to the speaker on the condition that he changes his name from Wrentmore to Armadale; the second, a clerk named Fergus Ingleby who would usurp the Armadale name in order to marry the daughter of property-owner Stephen Blanchard, with whom the speaker was in love; and the third and fourth Armadales, the offspring of the two men. The younger generation of Armadales consists of Allan Armadale, son of Fergus Ingleby-cum-Armadale, murdered by our speaker off the coast of Barbadoes; the other Allan is the son of the speaker and his wife, a "shriveled old negress," who uses the pseudonym Ozias Midwinter throughout the novel (12). The name's

replication has long been interpreted by critics to signify the proliferation of meaning itself in the text, the difficulty of uniting legal, social, economic and psychological definitions of individuality in a single person; as Carolyn Dever puts it, the name is “so overdetermined that it seems to serve more as a floating signifier than a means of identification” which has the effect of “underscoring unity, sameness and connection, and presaging the affective intimacy that flourishes between the novel’s Armadale and his Midwinter” (116). However, the prologue also helps to establish that the context behind an individual’s name helps to define him or her as much as the name itself. A name like “Armadale” would conjure an image of upright, propertied Scottishness to a typical British novel reader, but within these first chapters, the reader encounters a murderer, a usurper and thief, a very typical Englishman, and a “savage” “half-caste” who fits neither an English nor Scottish prototype, all under the umbrella of a single, nationally-inflected signifier.

What the reader might picture upon hearing the name “Armadale” is, in fact, someone like the prologue’s Mr. Neal, the Scottish solicitor who hears Armadale’s confession under great duress. Neal, with his Gaelic name and stern demeanor, is a figure worthy of the Scottish Enlightenment. Misidentified by the landlord of the inn as English, Neal is first described as “a lean, tall, serious, middle-aged man, with a cold grey eye and a long upper lip: with overhanging eyebrows and high cheek-bones; a man who looked what he was – every inch a Scotchman” (10). (Interestingly, the last sentence of the chapter identifies Neal and Armadale as “the two first *English* visitors of the year” [my emphasis]; though it perhaps would not have been uncommon for the provincial European town Collins describes to conflate English and Scottish identity, or to allow Englishness to subsume Scottishness, it is a decidedly strange ending for a chapter that is in many ways about conflating national and biological identity [13].) The second chapter,

titled “The Solid Side of the Scotch Character,” emphasizes Neal’s Scottish characteristics in contrast with those around him: Armadale’s German doctor has a face that is “plump and florid, soft and shapeless” while Neal’s is “long and lean, hard and regular” (14). In the face of crisis, Neal is like “a rock in the Black Forest” who “entirely declined to be drawn by any doctor in Christendom out of the regions of plain fact” (16). And as the florid German, who foreshadows the hapless Allan of the next generation, points out, “It is in the habit of my nation to be perpetually losing the thread [of narrative] – and it is evidently in the habit of yours, sir, to be perpetually finding it. What an example here of the order of the universe, and the everlasting fitness of things!” (17). The Scot’s rationalism and empiricism, so characteristic of the Scottish Enlightenment, lead him to protect his freedom of will and right to choose whether to become entangled in the story of the dying Armadale at all costs. He rejects the German’s plea that he is the only man who can help because of his English-speaking skills, and though he does ultimately cave to his pleas, he does so only at his own pace and on his own terms – securing his own innocence and absolving himself of any responsibility for the results of the letter he is to dictate, or rather, he insists that “I reserve my own entire freedom of action” (27).

However, the narrative threatens to undermine Neal’s staunch rationalism at every turn. Of course, Neal himself realizes that to some extent his choices are predetermined – he must select “between the two alternatives of saying, Yes, and committing an act of imprudence – or of saying, No, and committing an act of inhumanity;” he acknowledges that the position “is forced on me” and that “I have no choice but to accept it” (20-1). Even Neal must face the fact that no choice is ever entirely free, that circumstances still determine to some extent what we choose between in the first place. Each of the characters in the prologue is also clearly hemmed in by his or her nationality, as in the examples of German and Scottish characteristics above. Can Neal be

anything but rational if that is what has been bred into him? Though the dying man is oddly devoid of any strongly identifying national characteristics, we learn that his wife “is of the mixed blood of the European and the African race, with the northern delicacy in the shape of her face, and the southern richness in its colour,” a woman whose “hot African blood burnt red in her dusky cheeks” (23, 35). Indeed, his miscegenous background returns to haunt Ozias Midwinter over and over again throughout the novel; though the “hereditary superstition” comes from his white father, he is variously described as having “something of a foreign look” with “dusky hands” (67); “tawny, haggard cheeks,” eyes “preternaturally large and wild,” and “long supple, sinewy fingers, wasted by suffering, till they looked like claws” (73); as swarthy and clawed (146); as savage (367). His ancestry comes to the fore in a way that the other Allan’s never does: he knows that he has “my mother’s negro blood in my face, and my murdering father’s passions in my heart, inheritor of their secret in spite of them” (105); elsewhere, his “hot Creole blood” pushes him to action (479); and “the savage blood that he had inherited from his mother rose dark and slow in his ashy cheeks” (757). Thus Collins presents a conundrum; whether Ozias’s “hot” blood comes from his mother or from his murderous English father, he is obsessed with the extent to which his actions and attitudes are determined by what he has inherited from each parent, both as individuals and as members of a race, culture and nation. For Neal, then, the conundrum is that the very characteristic which most strongly defines him seems to be rooted in an aspect of identity, nationalism, that was believed to be a constellation of biological and social factors. This kind of vulnerability to circumstance and biology comes forward in the rest of the novel under a variety of terms: fate, superstition, heredity, destiny, links in a chain – not coincidentally, all the terminology which I have described as being in circulation in the mid 1860s to describe hard determinism.

On the other hand, the final factor that confounds Neal as champion of free will in the prologue is the unnamed Mrs. Armadale. Upon encountering her “inbred grace” and “large languid black eyes [which] rested on him gratefully,” and her “little dusky hand offered itself to him in mute expression of her thanks,” Mr. Neal finds himself “taken by surprise” “for the first time in his life” (23). “His thrice impenetrable armour of habitual suspicion, habitual self-discipline, and habitual reserve, which had never fallen from him in a woman’s presence before, fell from him in this woman’s presence, and brought him to his knees, a conquered man” (23). Ozias’s mother foreshadows Lydia Gwilt: both possess great but unconventional beauty based on their ability to conform to just enough standards of “northern delicacy” but with a touch of the exotic, non-English about them, and both have an unwavering ability to bend men – even the strongest, most straightforward men – to do their bidding. Neal’s vulnerability represents the other main threat to free will, what I have described above as influence. Mrs. Armadale’s influence seems to be almost purely sexual, but as we shall see, the relationship between one individual and another, and the extent to which that relationship constitutes some form of determinism, becomes one of the guiding themes of the rest of the novel.

The strain of hard determinism in *Armadale*, which I have argued is represented in Darwin’s work by the genetic and evolutionary tree, appears in Collins’ novel via several tropes which recur obsessively: inheritance and family relationships, the chain of events, and superstition and the gothic. Like Darwin’s less flexible notion of biological determinism, these tropes tend to look backwards, relying on the past as a reliable predictor of future events and embracing hereditary relationships as the strongest of all (though, as we shall see below, Collins nonetheless challenges this inflexible notion in favor of the more fluid concept of influence). Not coincidentally, this kind of fatalism in Collins is linked directly to nineteenth-century notions of

the gothic. In this rhetorical structure, there is little room for metaphor: the line on a pedigree determines precisely the relationship between father and son, and for Ozias in particular, as I shall demonstrate, feeling is akin to action. Whereas literary historians generally regard the gothic as a kind of metaphor in reverse – that is, mental turmoil externalized to become dangerous and threatening situations, mental reality made physical – Collins’ use of the gothic seems to obliterate the metaphorized connection between the two and make it literal, in every sense. In *Armada*, gothic determinism represents a backwards, old-fashioned, but possibly still potent way of thinking; it is a model for a different time that no longer seems relevant except in its capacity to haunt our collective memories. No longer need we follow the mandate of that hallway full of aristocratic family portraits who dictate the offspring’s physical but also mental traits – but, like Ozias Midwinter, Collins cautions, it is not so easy to rid ourselves of the spectre of that outdated mode of thinking. And the alternative, as I shall demonstrate, is no less dangerous than the magical, Gothicized, predetermined version of heredity.

Of course, Ozias Midwinter himself is Collins’ most accurate representation of the fatalist mode of thought in *Armada*. From the moment he reads his dying father’s confession and its accompanying admonition to avoid Allan Armadale the younger at all costs, Midwinter is obsessed with his own inheritance from his father. The closing words of that letter leave the question of fatality open, but advise the young Allan/Ozias not to take any chances with it:

“My son! The only hope I have left for you, hangs on a Great Doubt – the doubt whether we are, or are not, the masters of our own destinies. It may be, that mortal freewill can conquer mortal fate; and that going, as we all do, inevitably to death, we go inevitably to nothing that is before death. If this be so, indeed, respect – though you respect nothing else – the warning which I give you from my grave.

Never, to your dying day, let any living soul approach you who is associated, directly or indirectly, with the crime which your father has committed” (55).

Armadale, consumed by guilt and facing the end of his life, combines biblical threats of punishment with a literal ghostliness, speaking to his son from the afterlife. He warns his son that he sees only “danger in the future, begotten of the danger in the past – treachery that is the offspring of *his* treachery, and crime that is the child of *my* crime” (54.) Furthermore, he says, the biblical injunction that “the sin of the father shall be visited on the child” is borne out by everyday experience; “I see the vices which have contaminated the father, descending, and contaminating the child; I see the shame which has disgraced the father’s name, descending, and disgracing the child’s” (54-5). An outdated model of morality and biology, dominated by supernatural posthumous punishments and, as in the case of Anne Brontë’s *Tenant*, an unavoidable taint or contamination coming from the past and absolutely determining the future, is the father’s true legacy to his son, a legacy of fear, superstition and paranoia: “I look in on myself – and I see My Crime, ripening again for the future in the self-same circumstance which first sowed the seeds of it in the past; and descending, in inherited contamination of Evil, from me to my son” (55).

For his part, Ozias fully internalizes his father’s patrilineally-oriented worldview. Though the minister Mr. Brock, to whom he has confessed his past, reassures him that “I am incapable of cruelly holding you responsible for your father’s crime,” Ozias vacillates between utter relief at the potential for forgiveness and utter terror at the power of the curse borne in his blood – not just from his father, he reminds Brock, but from his mother as well: “there was I, an ill-conditioned brat, with my mother’s negro blood in my face, and my murdering father’s passions in my heart, inheritor of their secret in spite of them!” (103-5). Midwinter relies on feeling over

reason, and his extreme sensitivity forces him to relive over and over again the events narrated by his father. Ultimately, what he calls “the horror of his hereditary superstition” overcomes him on almost every occasion, always guided by the inevitability of biological inheritance (124). “Say if you like, that the inheritance of my father’s heathen belief in Fate is one of the inheritances he has left to me,” he tells Brock, in one of the novel’s most direct connections between heredity, fate and the gothic.

Why, then, is heredity a motif of determinism in the literary medium during this period, but representative of a modified, more fluid version of the doctrine that accounts for the possibility of at least limited free will in the Darwinian model above? Part of the reason for this, I would argue, is that Collins is relying on a notion of heredity not as a biological phenomenon in and of itself, or as a material phenomenon in any way, but as an almost purely *literary* tradition. Like the terrifying corpse in the closet in Ann Radcliffe’s *The Mysteries of Udolpho* (later revealed to be mere wax), or the portrait, reminiscent of the aristocratic hall of family portraits once again, that pops out of the wainscoting nearly a century later in George Eliot’s *Daniel Deronda*, Midwinter must face the specters of the past which pop up in the most unexpected places. They pursue him relentlessly, at least in part because he has been instructed to look for them everywhere and to avoid them at all costs. Collins’ use of ancestry follows the openly Gothicized plots we have seen thus far in the century; at the heart of both the gothic and the realist novels during the Victorian period lay an obsession with family, acknowledged and unacknowledged, and the ominous potential of inheritance. Though the earlier chapters of this project attempt to reveal the ways in which women in particular were able to negotiate these same tropes in order to find agency for their heroes heroines, Collins reads this literary history as restrictive, even degenerative.

This claim is supported by the number of occasions in which Midwinter himself conflates heredity with superstition and gothic tropes like ghosts and dreams. Most memorably, Midwinter claims to see the ghosts of his father and Allan's when they board the very ship, *La Grâce de Dieu*, upon which the original murder was committed. Upon Allan's query as to whether he has seen a ghost, Midwinter replies, "'I see two!' [...] 'The ghost of a man like you, drowning in the cabin! And the ghost of a man like me, turning the lock of the door on him!'" (150). And indeed, Collins' narrator momentarily entertains the notion that the past and present have actually converged: "Here, where the deed had been done, the fatal parallel between past and present was complete. What the cabin had been in the time of the fathers, that the cabin was now in the time of the sons" (150). Though Allan, still ignorant of their shared history, assures his shipmate that he is "dumb about the past," the deed is done; "So, like a noisome exhalation from the father's grave, the father's influence rose and poisoned the mind of the son" (157) and Midwinter is once more convinced of their shared fate. The relationship between ghosts and heredity was of course also an ancient trope, one that would become literalized at the end of the century in works like Henrik Ibsen's *Ghosts* (1881), about the relationship between an unfaithful father and the son who inherits (congenital) syphilis from him. The text purposely exploits this connection in order to raise the stakes of readerly suspense. By playing on a topic that was very much on contemporary minds of all classes, educations, and political persuasions, Collins simultaneously dismisses the notion of heredity as old-fashioned and outdated *and* upholds the possibility of it as a challenge to the dominant mode of realism.

Similarly, Midwinter's reaction to Allan's Dream (always capitalized for maximum effect) helps to underscore his obsession with an antiquated mode of interpretation, one that relies on a direct correspondence between metaphor (in this case, the Dream) and reality. When

the normally carefree Allan appears to be suffering from a nightmare on board the wrecked *Grace de Dieu*, “so near in the body to the friend who bent over him; so far away in the spirit, that the two might have been in different worlds,” Ozias’s response is unequivocal: “One question, and one only, rose in the mind of the man who was looking at him. What had the Fatality which had imprisoned him in the Wreck decreed that he should see?” (163). Their host, the doctor Mr. Hawbury, assures Allan that it is not mere indigestion at the root of the dream, but a “reproduction, in the sleeping state of the brain, of images and impressions produced on it in the waking state; and this reproduction is more or less involved, imperfect or contradictory” (173-4). Allan’s memory, which is hopelessly non-linear and unreliable, simply produced a jumble of images that were mechanically and electrically reproduced by his partially active brain: an interpretation that is materialist, and that allows for a comfortable space between reality and the sometimes disturbing imagery of the material mind within the subject. Midwinter rejects both the doctor’s and Allan’s explanations of the dream, and insists that the only acceptable interpretation is one in which the pictures which passed before Allan’s mind bear a one-to-one relationship with events that have happened in the past and will happen in the future.

Interestingly, the narrator of the novel is somewhat disturbingly inconsistent. When Midwinter is described as having “hereditary superstition” (124) by the narrator, the terms themselves, and the combination of the two terms, seems as dismissive as every other character who attempts to talk Midwinter out of his fantasies (Brock, Dr. Hawbury, etc.). But there are moments when the narrator seems to have slipped into Midwinter’s consciousness, as in the passage above when (s)he declares that “the fatal parallel between past and present was complete” (150). Is this merely a quirk, Collins’ method of enhancing suspense by slipping seamlessly into the logic of his characters? In part, yes; but by definition, a narrator is a teller of

stories, one who relies on the logic of events succeeding each other and leading to a predetermined endpoint: the novel is nothing if not teleological in and of itself. Thus it is easy for the unnamed narrator to identify with the final characteristic of the deterministic side of the novel, the trope of the chain of events. Everything that happens to Midwinter gets cast in terms of one coincidence linked to the next, leading inexorably to a catastrophic end. For example, upon discovering that the woman he rescued from suicide may in fact have been the same woman he met on the road to Thorpe-Ambrose, he asks, “*Is there a fatality that follows men in the dark?*” [...] If the conjecture was right, the one event in the past which had appear to be entirely disconnected with the events that preceded it, was, on the contrary, the one missing link which made the chain complete” (125). Again, upon meeting Mr. Bashwood outside Thorpe-Ambrose, he notes that “The strange man whom he had just heard described, and the strange man of whom he had asked his way where the three roads met, were remarkably like each other. Was this another link in the fast-lengthening chain of events?” (244) The logic of narrative converges with the logic of fatality in this novel. In other words, the reliance on coincidence so heavily critiqued by Mansel as opposing the interests of the realist novel is, in actuality, those interests carried to their logical conclusion. All that is required to link two events is their juxtaposition in a narrative and/or their repetition within that same narrative; Collins merely takes this assumption that lies at the heart of the novel itself to the extreme, and in doing so, he critiques the realist reliance on those very traits.

Ultimately, some of the strongest elements of determinism in the novel – inheritance, use of gothic tropes, and the motif of the inexorable chain of events – are meant to be read as old-fashioned, even unbelievable to everyone but Midwinter. Ozias is trapped in his own mental framework, from which there is no escape: “he could not conquer the latent distrust of

circumstances which was now raised again in his superstitious nature – the instinctive suspicion of everything that happened, no matter how common or how trifling the event, on the first memorable day when the new life began in the new house” (223). His interpretative framework is all-encompassing; nothing can escape becoming imbued with the overarching meaning he sees in everything around him. To adapt this to the language of metaphor and linguistics, Midwinter allows no free play of meaning, no space between sign and object; the result is a one-to-one correspondence between reality and his own skewed mental framework. Indeed, Collins describes Ozias as quite literally impressionable, as though he is a piece of clay who can only receive the imprint of his surroundings but cannot interpret it in any way other than physically, or rather, in the same way Foucault describes the early relationship between meaning and physical object: upon rejecting Allan’s offer to become his steward, and Allan’s response that he has “hurt” him, the narrator tells us that “Simple as the words were, and simply as they had been spoken, they appeared to work an instant revolution in Midwinter’s mind. His impressible nature recoiled as from some sudden shock” (160). It is as though Allan’s emotional hurt becomes, in Midwinter’s claylike nature, a physical hurt upon the body.

Like Midwinter, the novel seems to be obsessed with the mechanisms of determinism, even as it portrays them as ineffective buffoonery. However, it does not follow that *Armada* advocates for or privileges a liberal model of the individual with full agency over his or her life. Rather, I will argue in the rest of this section, the novel presents us with something that functions in a structurally similar manner to Darwin’s pangenesis. *Armada* takes the contemporary conversation about influence, described above, and applies it to a literary world – a closed system that is nonetheless rife with characters who have the power to influence one another. As Laurence Talairach-Vielmas notes, Collins was fascinated by the implications of mesmerism, the

burgeoning science based on magnets and hypnosis which declared that one person could absolutely control the actions of another. Rather than reading *Armada* through the framework of mesmerism, I instead read mesmerism as one symptom of the larger and more encompassing notion of influence. To explain how influence might function in the novel, I return to the scene in which Allan and Midwinter are stranded overnight on *La Grâce de Dieu*. Upon daybreak, we learn that “The struggle between the hereditary superstition that was driving [Ozias] on, and the unconquerable affection for Allan that was holding him back, suspended the next words on his lips” (158). Like Mr. Neal in the prologue, the only thing that can change his mind about the action upon which he has decided is affection: in Neal’s case, sexual attraction, and in Midwinter’s, brotherly affection (though, as Dever has argued, the difference between the two may be smaller than it initially seems). The rise and fall of action in the novel is regulated, in fact, by this very struggle: more than anything, especially in the first half, the plot is a question of whether he succumbs to his superstition or allows his affection for Allan – or his attraction to Lydia Gwilt – to overcome that superstition.

Indeed, Midwinter is not the only character to fall prey to the sexual fascination of Lydia Gwilt. Upon meeting Bashwood properly, we learn that something draws the two men together:

The two strangely-assorted companions were left together – parted widely, as it seemed on the surface, from any possible interchange of sympathy; drawn invisibly one to the other, nevertheless, by those magnetic similarities of temperament which overleap all difference of age or station, and defy all apparent incongruities of mind and character. From the moment when Allan left the room, the hidden Influence that works in darkness began slowly to draw the two men

together, across the great social desert which had lain between them up to this day. (279-80).

Collins employs a rather dizzying variety of mid-century buzzwords in this passage: sympathy, magnetic, temperament, (in)congruity, and of course Influence. This jumble makes the passage no less puzzling, particularly since this kind of influence seems to have nothing to do with any visible or obvious form of likeness between the two, nor does it seem to rely on any apparent attraction between the two in the conventional sense of the term. Given the novel's emphasis on Midwinter's desperate search for meaning in everything he encounters, this appears to be a moment "that works in darkness," a moment that lies tantalizingly and frustratingly beyond his interpretive framework. Perhaps, given the prevalence in the first several books of the language of fatality and coincidence, the reader might reasonably expect Bashwood and Midwinter to share a past, to discover a preposterous but just barely believable connection between the two. The novel seems to taunt the reader in this sense – we, too, like Ozias, search for a meaning that is not to be found. Alas, the connection never materializes, the coincidence remains unproven.

Mr. Brock deftly summarizes the difference between the two positions. In Midwinter's eye, he writes,

You are a helpless instrument in the hands of Fate. You are doomed, beyond all human capacity of reistance, to bring misery and destruction blindfold on a man to whom you have harmlessly and gratefully united yourself in the bonds of a brother's love. All that is morally firmest in your will and morally purest in your aspirations, avails nothing against the hereditary impulsion of you towards evil, caused by a crime which your father committed before you were born. (622)

The logical result of these beliefs is “the darkness in which you are now lost” and “the self-contradictions in which you are now bewildered” (622). Not only a belief in determinism, but an overweening assumption of the power of heredity itself (the two being inseparable), is decried as savage, heathen, and immoral. The antidote to this philosophy of “brutes” (recalling the imagery of savagery and animalism with which Midwinter is first described) is one of Christian enlightenment: “Meet the doubts that now assail you from the blessed vantage-ground of Christian courage and Christian hope; and your heart will again turn to Allan, and your mind will be at peace,” he advises. “No evil exists, out of which, in obedience to His laws, Good may not come” (623). Though he does have influence over Allan, Brock reassures him that the brotherly love of Christian doctrine can only be a beneficial influence, not a harmful one. This looks more like the mid-Victorian doctrine of self-reliance and the power of sympathy and love for one’s neighbor.

Yet the saving influence of love described by Brock is proven to be a more complicated beast than his death-bed missive indicates. Rather, we learn that each of the main characters is curiously vulnerable to the powers of Lydia Gwilt. Allan, Midwinter, and Bashwood seem, in fact, powerless to resist her – though of the three, Allan is the only one ultimately able to recover from his fascination and move on with his life. Gwilt uses her “subtle mixture of the voluptuous and the modest,” and when addressing men, “She spoke with a merciless tyranny of eye and voice – with a merciless use of her power over the feeble creature whom she addressed” (455-6). Upon catching one of Allan’s spies following her, we learn that she “was too confident in her own powers of persuasion not to count on the man’s assistance beforehand, whoever he might be, *because* he was a man” (459). And she expertly exploits Midwinter’s vulnerability upon his return from London: “A man exceptionally sensitive, a man exceptionally pure in his past life, he

stood hand in hand in the tempting secrecy of the night, with the first woman who had exercised over him the all-absorbing influence of her sex [...] The man (with a man's temperament) doesn't live who could have left her" (461). Like everything else, Gwilt gets subsumed within Midwinter's inexorable system of interpretation. Even before he realizes his love for her, he imagines her as the silhouetted Woman of the Dream: "The one woman, whom *his* superstition dreaded, was the woman who had entwined herself with the lives of the two Armadales in the first generation, and with the fortunes of the two Aramadales in the second" (338). Of course, this description occurs at the moment when he fails to reconcile Gwilt's actual face with the (inaccurate) description in Brock's letter. The scene is a crisis of interpretation for Midwinter, one which will eventually topple to his all-consuming epistemology. The woman he expects, the one he describes, becomes herself one with heredity: she is a material force who unites the two generations and the two families as one, as she is eventually to take advantage of this supposition in order to effect the downfall of both Armadales.

Nor is Lydia herself immune to this kind of sexual influence; indeed, as her attraction to Midwinter increases, she finds herself drawn more and more into his way of thinking. "As if either he or I could escape doing what we are fated to do – supposing we really are fated – by putting a few hundred, or a few thousand miles, between Armadale and ourselves! What strange absurdity and inconsistency! [...] How interested I do feel in him? How dangerously near I am to shutting my eyes on the past, and letting myself love him!" (529). For Gwilt, the power of attraction between them is enough to make her, too, embrace the logic of hard determinism. Like Midwinter, she begins to rely on fear and instinct, and writes that "he has shaken my resolution" (615). In an important moment, she realizes that she is no more immune to Midwinter's influence than he is to hers: "Is it my love for Midwinter that has altered me? Or is it *his* love for

me that has taken possession, not only of all I wish to give him, but of all I wish to keep from him as well? I feel as if I had lost myself – lost myself, I mean, in *him* – all through the evening. [...] The superstition – *his* superstition – took so strong a hold on me [...]" (615). But Gwilt's fatality is not Midwinter's; it is rooted not in the past or the sins of the fathers but strongly in the present, the here and now. While it is true that Midwinter's fatalism seems to be contagious, it is only because of his influence over her.

If this type of influence also results in the individual's loss of agency, what separates it from the more ominous determinism espoused by Midwinter? Why separate the two at all? For one thing, *Armada* seems to take person-to-person influence quite a lot more seriously than it does hard determinism, as I have shown above. Midwinter's narrative is both teleological, aimed toward a pre-defined target, and cyclical, as the reader tracks his oscillation between "superstition" and the kind of Christian rationality Brock describes. Lydia Gwilt, on the other hand, makes things happen – and she is not afraid to use Ozias's fatalism and the abundance of coincidences as a set of tools to manipulate those around her. Gwilt hatches plots of her own and then makes them come to pass; she looks to the future while Midwinter remains paralyzed in the past. Midwinter can only recycle a limited set of meanings, relying as he does on a closed set of relationships between reality and interpretation, but Gwilt blows that relationship wide open and makes any set of outcomes possible. This makes her, in Collins' world, both powerful and dangerous. The novel's real climax, I would argue, occurs not in the final poison scene, in which Lydia poisons the air of Allan/Ozias's bedroom at the asylum of the former Dr. Downward, but rather in the moments of indeterminate language leading up to that scene.

As the current Dr. Le Doux reminds her, a piece of paper is meaningless before the law unless she has a witness "possessed of rare moral and personal resources, who can be trusted to

assume the necessary character, and to make the necessary Declaration before a magistrate” – what has actually happened matters to the eye of the law only as long as a personal relationship can be found to “prove” the truth (717). Gwilt’s real downfall is the moment in which she puts herself in LeDoux’s power: upon learning that Armadale has survived the shipwreck instigated by Gwilt and her former lover Manuel, she and Le Doux face legal consequences for the first time. “Don’t suppose I am invidiously separating my interests from yours,” he tells her, “in the common danger that now threatens us both. I simply indicate the difference in the risk that we have respectively run” (736). Having sworn before the law that Lydia was married to Armadale and not Midwinter, Le Doux faces perjury charges if Armadale tells the truth, and he consequently advocates “making a fight for it” (736). At this moment a crisis of interpretation and meaning occurs, a conflict in which Le Doux uses language and gesture to conceal meaning while Gwilt, still unwary of implicating herself further, insists on stating plainly her own truth:

A solitary fly, the last of his race whom the winter had spared, was buzzing feebly about the doctor’s face. He caught it before he answered me, and held it out across the table in his closed hand. “If this fly’s name was Armadale,” he said, “and if you had got him as I have got him now, what would *you* do?” His eyes, fixed on my face up to this time, turned significantly as he ended his question, to my widow’s dress. I, too, looked at it when he looked. A thrill of the old deadly hatred, and the old deadly determination, ran through me again. “I should kill him,” I said. The doctor started to his feet (with the fly still in his hand), and looked at me – a little too theatrically – with an expression of the utmost horror. “Kill him!” repeated the doctor in a paroxysm of virtuous alarm. “Violence – murderous violence – in My Sanatorium! You take my breath away!” (736)

Collins deftly interweaves his own theatrical background through fiction in this scene, creating a masterpiece of layered intentionality and meaning. From Gwilt's perspective, the doctor is undoubtedly advocating the murder she openly espouses; his action fails to match his language: "I caught his eye," she says, "while he was expressing himself in this elaborately indignant manner, scrutinizing me with a searching curiosity which was, to say the least of it, a little at variance with the vehemence of his language and the warmth of his tone" (737). Language is a performance, easily adopted and difficult to rely upon; true intentionality must be discerned from significant gestures: tone, posture, and eye contact. For his part, Le Doux instantly apologizes, saying, "I ought to have known better than to take a lady too literally at her word. Permit me to remind you, however, that the circumstances are too serious for anything in the nature of – let us say, an exaggeration or a joke" (737). Speaking what one truly means, Le Doux suggests, is gauche; in order to avoid implicating either one of them, he must assume that Gwilt doesn't mean what she says.

But Gwilt, for her part, is not quite able to parse Le Doux's intentionality. From her perspective, he *implies* through language that she should kill Armadale, and reinforces the implication through significant gesture. True, he ultimately lets the fly escape (after suggesting they merely blackmail Armadale and hold him hostage till he agrees to their terms), but she remains unsure about the extent to which violence must enter the plot to entrap him. Of course, Gwilt's narrative indicates that this is Le Doux's strategy: the power of suggestion. He implies murder, puts the weapon in front of her, and explains how to use it. She clearly identifies him as a co-conspirator – but one whose hands nevertheless remain bloodless, and who cannot be said to have *directly* suggested anything criminal to her at all. And of course, Collins' readers are left to struggle with the question as well: is this Gwilt's psychosis speaking? Is she a reliable narrator,

capable of accurately reading expression and intention, or is she so bent on her nefarious plans that she reads everything around her as part of those plans? The woman who has thus far served as the plot's engine suddenly becomes as unreliable and as obsessive as Midwinter. Her "old deadly determinism" begins to sound suspiciously like Midwinter's creeping superstition, and the doctor's question of "interests" again performs the model of influence or tempered free will. It remains unclear to what extent she is able to resist the doctor's "suggestions," even if she wished to do so. For his part, the doctor apologizes once more for what he calls merely an error of interpretation: "I positively blush at my own stupidity in putting a literal interpretation on a lady's little joke!" (741) But there is still no clear demarcation, for Gwilt and by extension for the reader, between metaphor and literal interpretation here; at this point, any attempt to read intentionality and determinism simply falls apart.

Indeed, this confusion of meanings is enacted once more in the novel's dramatic denouement, when Gwilt's act of intention – poisoning Armadale – is undone by misinterpretation, by fate, or by brotherly love, depending on how you read the scene. A kind of fatalism *does* exist in the novel, but not the one we imagined. Midwinter's superstitions ultimately fail and he is forced to reinterpret the old Dream: his fate was not to curse Armadale's life but to save it. And *influence* is ultimately Gwilt's downfall; her only real act of intention is her own suicide – still, an act brought about by her love for Midwinter. Is it fate or love that drives the novel's ending – or are they one and the same? Collins leaves the question unanswered, but I maintain that we can read Gwilt's last crisis, the difference between analogy and literal truth, as an indicator that determinism and free choice may interact with one another in unexpected ways. In the end, the way we construct meaning, and the way we tell stories, helps to crush the old binary and put it back together in new, though still unresolved, forms.

V. “Such contradictory conclusions:” *Legacy of Cain* and the sensational breakdown of heredity

As Jenny Bourne Taylor notes, the discourse surrounding Collins’ oeuvre, then and now, tends to fall in line with the notion of degeneration, linked in the late century to fears of a declining civilization and to a model “wherein the social became collapsed into the biological” (*Secret Theatre* 212). Early reviews of *Legacy of Cain* were less than glowing; the general opinion was that Collins’ finest novels were behind him.⁸³ Indeed, the *Spectator* review opens with the claim that “*The Legacy of Cain* [sic] is by no means one of Mr. Wilkie Collins’s best novels; but it remind us of one of his best novels, for in one respect its intellectual scheme is very similar to the intellectual scheme of *Armadale*” (120). In this final section of the chapter, I argue that the later novel revisits not only the debate between free will and determinism presented in the earlier novel, but the very notion of the genetic itself. By aligning the question of how and whether we can decode the genetic with the problematic nature of a stable and coherent self, Collins brings the sensation novel to its logical conclusion. That is to say, *Legacy* suggests that the problematic nature of individual identity, along with the biological concept of latency, blurs not just the relationship between metaphor and reality, as *Armadale* did, but the very categories of “influence” and “heredity” which dominate both novels.

Like *Armadale*, *Legacy* features two protagonists who are difficult to tell apart: in an inversion of the earlier plot, which featured namesakes raised apart but continually crossing paths, Helena and Eunice Gracedieu are raised as sisters but not actually related by blood. Both novels begin when the protagonists are infants and their respective parents perform the “sins of

the fathers” – or, in this case, mothers. One of the girls’ mothers is a murderess, set to hang at the novel’s opening and unrepentant to the end. The other is the wife of the Minister who would eventually adopt the murderess’ daughter; the Minister worships his wife but the reader knows that she conceals a vicious temper and a secret hatred for her adopted child. After his wife’s untimely death, the Minister raises the girls together without revealing their family histories to anyone, even the girls themselves. In classic Collins style, all is well until the adolescent girls fight over a suitor, one Philip Dunboyne, who jilts Eunice, takes up with Helena, and eventually realizes his mistake and begs Eunice to take him back – and who happens to be, unknown to almost everyone, the nephew of the murderess. In the midst of their fight, Eunice hears the voice of her dead mother urging her to murder Helena, and for her part Helena actually does attempt to poison Philip (as described in the chapter’s introduction). Like Lydia Gwilt, a former nurse ironically named Elizabeth Chance haunts the text, waiting to take out her vengeance on the younger generation for mistreatment by their parents.

Taking its cue from the ambivalent postscript of *Armada*, the opening chapters of *Legacy* present the novel as a case study on the power of genetics. As *Armada* presents multiple modes of (male) authority in conflict with one another, *Legacy* begins with a conversation about the fate of the murderess’ daughter among individuals identified only as The Governor (of the prison), The Chaplain, The Minister, and The Doctor. These men personify the “expert” perspectives of the law, the Church, and the medical establishment, respectively. As they debate over the soon-to-be-dead body of the murderess, the Doctor summarizes the positions in the debate over inheritance and influence, now polarized with seemingly little or no space between two widely different alternatives. Upon learning the Minister’s plan to adopt the murderess’ daughter, the Doctor asks, ““Are you one of those people who think that the tempers

of children are formed by the accidental influences which happen to be about them? Or do you agree with me that the tempers of children are inherited from their parents?” (14). Unlike in the novels described in earlier chapters of this project, influence is nothing more than “accident” for the doctor – he makes no allowance for the kind of deliberate care proposed by Helen Huntingdon. The Minister claims to agree, as does the evil Miss Chance: “You will find the tigress-cub take after its mother,” she ominously tells the Minister (18). Though Miss Chance seems to speak from no authority other than her own, since she has no abstract title as the men do, her “ignorant prediction,” in the words of the Governor, happens to coincide exactly with the educated expertise of the Doctor, who condescendingly informs the others that “If she had known how to put her meaning into good English, Miss Chance [...] might have told you that the vices of the parents are inherited by the children” and “this unfortunate little creature” may, in the end, “live to show you that she comes of a bad stock and inherits a wicked nature” (18). Indeed, the Doctor foregrounds his own expertise and authority, on the subject, informing the others that

For twenty years past [...] I have been studying the question of hereditary transmission of qualities; and I have found vices and diseases descending more frequently to children than virtue and health. [...] You will say this is a horribly discouraging result of experience, for it tends to show that children come into the world at a disadvantage on the day of their birth. Of course they do. Children are born deformed; children are born deaf, dumb, or blind; children are born with the seeds in them of deadly diseases. [...] And does it ever strike you, when you are cutting your mutton at dinner, and your cat is catching its mouse, and your spider

is suffocating its fly, that we are all, big and little together, born to one certain inheritance, the privilege of eating each other? (20)

Interestingly, the Doctor seems to unconsciously undermine his own position here by insisting that treatment of the girl could never remain entirely neutral in the face of this knowledge of her biological past, a question I shall return to below. Vice is always more likely to be passed down than virtue, he claims; and the very knowledge of the girl's background would come to reside at the heart of all interactions between (adopted) parent and child henceforth. Ultimately, he says, the image of her sinning mother "would rise from the dead in my memory, when the girl bounced out of the room in a rage" (20). The Doctor's thinly veiled polemic on the power of inheritance echoes the rhetoric of its time, the by then popularized ruthlessness of Darwinian natural selection and the degenerative notion of the contaminating taint. However, the Governor and Minister nonetheless present the opposite polemic, as did the Reverend Brock in *Armada*, in favor of influence. As evidence, they suggest that "the child will have every advantage that education can offer to her, and will be accustomed from her earliest years to restraining and purifying influences, in a clergyman's household" (21). The Minister relies entirely on the beneficial effects of religion, kindness, and example to overcome any "evil tendencies" which may surface in the child; the girl's childhood, in the Governor's words, would come down to "two forces in a state of conflict in the child's nature as she grew up – inherited evil against inculcated good" (29).

The novel thus forces its readers to acknowledge that even the positive influences of education and virtue can themselves be "tainted" by latent knowledge about an individual's biological past. The notion of the subconscious mind complicates any simple division of the question into determinism and free will, and the positive influence of the nurturing mother is, as

the murderess and her lack of maternal instinct amply demonstrate, completely null. The debate as it is framed here reinforces certain assumptions about the role of heredity in a wider social system: first, that the mother's evil is in fact heritable, presumably either acquired in an unwholesome environment and passed down (via the neo-Lamarckism which Jay Clayton identifies at the heart of the novel) or else as a trait inherited from her own parents, exacerbated over time.⁸⁴ Second, the comments demonstrate the eugenicist leanings that had become more dominant by the late eighties; the rich could overcome any possible hereditary contamination by the force of their own privilege, which could provide all the benefits of education. Without such benefits, the poor had no defenses against the taint and therefore could be expected to succumb more often to its thrall. Finally, the exchange reveals certain assumptions about the "purifying" influence of the home, even in spite of the fact that the murdering mother seems to overturn any notion of Anne Brontë's earlier usage of the cult of motherhood to reverse the assumptions of heredity. "When I think of the growth of that poisonous hereditary taint, which may come with time," says the Doctor, "- when I think of passions let loose and temptations lying in ambush – I see the smooth surface of the Minister's domestic life with dangers lurking under it which make me shake in my shoes" (20). Essentially, this passage recasts the question of heredity as the central driving force of sensation fiction itself. The dangers the Doctor refers to are explicitly genetic, and the question is not just whether the bonds of the domestic realm itself can act against the driving imperative of the biological, but whether the domestic and the hereditary can actually *influence one another* in ways previously unconsidered.

As the novel progresses, the question of which girl is the biological daughter of the Minister and which is the daughter of the murderess is clarified, then muddled once more, again and again. The competing web of influences in *Armada* gets boiled down here to a single

conflict: without a reliable way to determine one's hereditary past beyond a doubt, can one's parentage be correctly identified merely by observing traits and drawing comparisons among family members? Collins playfully dangles the question in front of his readers, begins to answer it, and pulls the rug out from under us once again by using the old issue of resemblance to make the question unanswerable. Helen and Eunice are, at various moments, compared to one another, to a portrait of the deceased Mrs. Gracedieu, and to others' memories of each mother, all of which are subsequently proven utterly unreliable. Upon seeing a portrait of Mrs. Gracedieu, the girls' Heep-like nurse-companion Miss Jillgall fawningly tells Eunice that "Nobody would ever guess that you were the child of that lady, with the long slanting forehead and the restless look in her eyes" (142). In return, Eunice confirms in her journal that "What Selina [Jillgall] had said of me and my mother's portrait, other friends had said. There was nothing that I know of to interest me in hearing it repeated – and yet it set me pondering on the want of resemblance between my mother's face and mine, and wondering (not for the first time) what sort of woman my mother was" (143). For his part, the Governor is instantly sure that Helena must be the biological daughter of the Minister. "Here was one of the Minister's two daughters," he writes, "and that one of the two – as I discovered the moment I shook hands with her – who has my friend's own child. Miss Helena recalled to me her mother's face, infinitely improved by youth and health, and by a natural beauty which that cruel and deceitful woman could never have possessed" (152). For the Governor, resemblance need not be exact as long as it causes him to *remember* the deceased parent in some capacity:

Fluently spoken; the words well chosen; the melodious voice reminding me of the late Mrs Gracedieu's advantages in that respect; little sighs judiciously thrown in here and there, just at the right places; everything, let me own, that could present a

dutiful daughter as a pattern of propriety – and nothing, let me add, that could produce an impression on my insensible temperament. If I had not been too discreet to rush at a hasty conclusion, I might have been inclined to say: her mother's child, every inch of her! (153)

Both Eunice and the Governor draw an instinctive connection between physical and moral resemblance – a connection, I will argue below, that ultimately allows Collins to complicate the “gut reactions” that allow each character to assume they have correctly identified each girl's parentage.

Thus far in the novel, all evidence points to the conclusion that Eunice is the daughter of the murderess. Yet the seemingly foregone conclusion is belied by equally strong (or rather, equally weak) evidence for the opposite side – that Helena is the one who has inherited the evil taint. The Governor, having met the mothers of both girls, and having the key knowledge of Mrs. Gracedieu's incredible capacity for cruelty (kept secret from the Minister), claims to recognize Helena by physical resemblance to her mother, but says that to compare Eunice to the murderess is “simply preposterous.” “Her hair was by many shades darker than her mother's hair; her eyes were of a different colour,” he writes. “There was an exquisite tenderness and sincerity in their expression – made additionally beautiful, to my mind, by a gentle uncomplaining sadness. It was impossible even to think of the eyes of the murderess when I looked at her child” (194). Eunice's extraordinary moral virtues separate her from her presumed mother as much as, even more than, her physical traits; in fact, continues the Governor, “Of the two girls, Helena – judging by something in the colour of her hair, and by something in the shade of her complexion – might possibly have suggested, in those particulars only, a purely accidental resemblance to my terrible prisoner of past times” (195). Of course, Collins lets the reader in on the joke which undermines

all of these comparisons: Helena *does* have the capacity for premeditated murder of a loved one, and she seems to resemble *both* women in different ways. Since the only existing portrait of Mrs. Gracedieu has been destroyed, these conclusions are also based on memories nearly two decades old and based on relatively brief and emotional encounters in the first place (235). Indeed, when Elizabeth Chance returns to the Minister's family under the awkward guise of "Medical Rubber" Mrs. Tenbruggen, she finds herself utterly unable to tell the girls apart and tries to trick the Governor into revealing his knowledge. Ultimately, the reader must be satisfied with Elizabeth's statement that "People have such strange ideas about likenesses [...] and arrive at such contradictory conclusions. One can only trust one's own eyes in a matter of that kind" (253). She concludes, or pretends to conclude, that Helena is the daughter of the murderess, based as much on her instinctive feeling as on the girl's looks (256).

The event that prompts the greatest certainty over Eunice's biological identity as the murderess' daughter is the breakdown she experiences upon discovering her lover's engagement to Helena. Eunice's descriptions of the moments before her meltdown reveal a strange bifurcation of the self, an alienation from and lack of recognition of her "true" self. When Helena asks if Eunice wishes she could murder her, Eunice immediately replies yes, but confesses herself frightened at the immediacy of the response. "I was obliged to sit down on the stair – I trembled so," she writes in her diary. "My own reply frightened me. I tried to find out why I had said Yes. I don't remember being conscious of meaning anything. It was as if somebody else had said Yes – not I. Perhaps I was provoked and the word escaped me before I could stop it. Could I have stopped it? I don't know" (138-9). Claiming that a "sneering devil" had possessed her and created a "new evil self," she takes her father's calming drugs in order to escape her own evil urges – and in doing so experiences yet another split in her own sense of selfhood, this time

between her will and her body. Her mind travels to her previous education, stored away dormant in her memory, as she recalls, “Horrors which I had recoiled from reading in past happy days, now returned to my memory; and, this time, they interested instead of revolting me” (144). Like Lockwood, she experiences icy fingers supernaturally touching her in bed, and a voice claiming that “I am your mother” but refusing to provide any comfort to her daughter, only the advice to “harden her heart” against Helena and murder. Eunice begins a series of grisly visions, at the end of which she awakes to find herself at her sister’s bedside, smothering Helena with a pillow. The scenes in this sequence shift between waking and consciousness, and only by imploring Philip for strength against evil is Eunice able to stop herself from committing murder. This, then, is the crux of the novel, the key to the daughters’ hidden identities; there can be no going back from this attempt at murder, we are given to understand. The intention to kill matches the murderess’ action – and no overt mention is made of the fact that Mrs. Gracedieu, too, expressed *intention* to do away with her adopted daughter – and followed that expression of intention with a fit (34).

At this point, Eunice resolves to abandon her journal, and the rest of the novel is given over to the narration of the Governor and Helena. To the Minister, unacquainted as he is with the character his wife had revealed to the Governor, Eunice’s fit can only be explained by her parentage – and critics of the novel have agreed with him more or less unanimously.⁸⁵ Even in spite of the Governor’s and Elizabeth’s claims about the resemblance between Helena and the murderess, and the former’s insistence that Eunice looks like the younger of the two sisters, the narrative continues to point to the fact that it is Eunice who carries the evil taint. Growing ever nearer to his deathbed, the Minister confesses to the Governor the “true” story of the girls’ birth – that Helena was named by his wife and baptized in a faraway village. Nonetheless, the Governor notes that “The subtle machinery which stimulates the memory, by means of the

association of ideas, appeared to have lost its working power in the intellect of his unhappy man” (159). Like his (adopted?) daughter, the Minister has lost the thread of mental coherence, and can no longer distinguish between fantasy and reality – hardly the most authoritative source to “solve” this mystery. Though he seems to accept the story, particularly as it confirms his own suspicions, the Governor concludes that “He was not fifty years old yet; and he had just exhibited one of the sad symptoms which mark the broken memory of old age” (161). The “truth” as such becomes a question of verifiable facts on the one hand and the existence of a stable, coherent self on the other. Given the Governor’s knowledge of Mrs. Gracedieu’s capacity for cruelty, there is no real authority the narrative can present to establish that Eunice’s madness comes not from the hanged murderess but from either of the Gracedieus. Resemblances, both physical and behavioral, depend on the unbiased, healthy mind of the observer – a rather rare thing in Collins’ work. Though the Governor can and does verify the birth registry at Low Lanes, *Legacy* introduces a series of selves that are fractured, broken, discontinuous. In doing so, it undermines the authority of resemblance as the visual logic upon which heredity is based.

By the novel’s end, Eunice’s psychotic episode lessens in importance as Helena’s depravity – and her attempted murder of Philip, who has repented of his mistake and shifted his affections back to Eunice – are revealed. The Governor finds comparison between (supposed) mother and daughter futile here; “the doctrines of hereditary transmission of moral qualities must own that it has overlooked the fertility (for growth of good and for growth of evil equally) which is inherent in human nature. There are virtues that exalt us, and vices that degrade us, whose mysterious origin is, not in our parents, but in ourselves” (326). *Armada* locates the genetic along the axis of superstition, a type of fatalism that can nonetheless be overcome by the right set of influences. Ultimately, I argue, *Legacy* rests on the question of latency, the possibility first

expressed in Darwin's *Variations* that material traces of hereditary material can remain in the body and be activated years, even generations, later. Latency, for Collins, remains particularly applicable to moral traits, to the immeasurable and immaterial qualities of the individual. As the Governor puts it in a passage worth quoting at length,

No man in his senses can doubt that physical qualities are transmitted from parents to children. But inheritance of moral qualities is less easy to trace. Here, the exploring mind finds its progress beset by obstacles. That those obstacles have been sometimes overcome I do not deny. [...] I doubt the conclusion which sees, in inheritance of moral qualities, a positive influence exercised on moral destiny. There are inherent emotional forces in humanity to which the inherited influences must submit; they are essentially influences under control – influences which can be encountered and forced back. That we, who inhabit this little planet, may be the doomed creatures of fatality, from the cradle to the grave, I am not prepared to dispute. But I absolutely refuse to believe that it is a fatality with no higher origin than can be found in our accidental obligation to our fathers and mothers. (201-2)

Genetics gets recast here as an influence in and of itself, one of a group of factors competing for dominance within the individual. Both biological inheritance and the supernatural with which it remains aligned lose their power. The category of the latent, the question around which the novel revolves, in essence blurs the space between free will and determinism in the same way that *Armada* muddies the border between metaphor and reality. Indeed, the latent is a gothic trope made bodily: anything can be hidden (within the body or the mind), including influences both hereditary and environmental. These traits may emerge at any time, or they may never surface at all. And, to complicate matters further, traits can surface that may have no prior referent at all. Is

Helena's evil a matter of Mrs. Gracedieu's meanness now grown in magnitude, or is it a more direct inheritance from the murderess? The novel's ending suggests a third possibility, one that brings the project of sensation fiction to its conclusion: "When I think of Helena," writes the Governor, "I ask myself, where is the trace which reveals that the first murder in the world was the product of inherited crime?" (326) Either *all* humans carry the hereditary taint – the legacy of Cain, inherited, presumably from the original sin of his parents – or else it is possible for such a taint to arise spontaneously without hereditary precedent. Either construction deals the logic of the genetic a severe blow. The self-assured "expertise" expressed by the Doctor at the start of the narrative appears naïve by the end. At her own murder trial, Helena's lawyers argue for a case of mistaken identity – but they could just as well be deconstructing the notion of identity itself.

But what to make of the fact that the novel's critics have so insistently argued for the interpretation in which Eunice is the daughter of the murderess, but finds love in spite of her taint? The Governor himself assures us – and Eunice – that this must be the right version of events. For the Governor, as for Brock, selfless love is the way to avoid any unwholesome influence:

While, therefore, I resigned myself to recognize the existence of the hereditary maternal taint, I firmly believed in the counterbalancing influences for good which had been part of the girl's birthright [...] With the great, the vital transformation, which marks the ripening of the girl into the woman's maturity of thought and passion, a new power for Good, strong enough to resist the latent power for Evil, sprang into being, and sheltered Eunice under the supremacy of Love. Love ill-fated and ill-bestowed – but love that no profanation could stain, that no hereditary evil could conquer. (201-2)

To be sure, this is a comforting end to the narrative, one which upholds the bonds of companionate marriage and the Victorian virtues of domesticity. It is an ending which allows Collins to ship Helena safely off to America, where she becomes that frightful thing, a feminist. Her independence – from British society, from family and husband – is radically frightening compared to Eunice’s comfortable containment. Nonetheless, the novel has demonstrated in multiple ways that *any* pronouncements about the stability of individual and family identities simply cannot be proven beyond the shadow of a doubt. There is, in fact, no conclusive evidence of Eunice’s true ancestry, but the power of narrative shapes an ending to the novel that feels as forced and uncomfortable as the endings of *Wuthering Heights* and *The Tenant of Wildfell Hall*. These endings are all unsatisfactory, but *Legacy*’s is barely an ending at all; the central mystery of the novel remains unsolved. Resolution only comes with accepting the unknowability and unpredictability of the self, by tethering it with the same social bonds which themselves help to produce the indeterminacy at the heart of the novel. Thus Collins takes the comparatively tidier ending of *Armadale* to a far more frightening conclusion in his last published novel, and the mid-century logic of Darwinian heredity which insists on holding impossible contingencies together ends with the suggestion that a family or social structure made of fragmented selves bound together might be radically unstable itself. This threat would be embodied, I shall argue in the final chapter, by Helena’s menacing figure of the New Woman, determined to rewrite the past and present to suit her own narratives.

Chapter Four

National Domesticity and the New Woman Gothic:

Celtic Nationalism in Mona Caird's *Daughters of Danaus*

I. Introduction: The New Woman and the old heredity at the fin de siècle

The early chapters of this project describe a process in which gothic taxonomies in scientific writings open up abundant epistemological and ontological possibilities, while contemporary fictions ultimately close them down and restore a traditional family structure. As the tenets of the science behind heredity became ever more fixed at the end of the century, biological and social scientists moved steadily toward a world view dominated by a totalizing heredity which allowed them to naturalize and hierarchize the nation, the race and the empire. In the first half of this chapter, I explore the ways in which this narrative developed and how it simultaneously relied and on and undermined biological womanhood. Because of this totalizing logic, I want to suggest in the second half of the chapter that it was up to the novel to project a gothic taxonomy that might limit this biologized hereditary nationalism. I turn to the writings of Mona Caird as one example of a novelist who deploys her own gothic taxonomy in order to confound the constraining scientific discourse she responds to. By presenting a fictional universe in which it is not species who breed and proliferate, but rather contradictory worldviews about the nature of heredity and of Nature itself, and by gothicizing teleological narratives of progress, Caird instead suggests a return to a “pretopian” past which directly conflicts with reigning scientific narratives and destabilizes them by reversing their relationship to forward-moving time.

After the publication of Darwin's *The Variation of Animals and Plants Under Domestication* (1868) and the varied responses by Francis Galton, Thomas Huxley, and Herbert Spencer, the debate over heredity took a new and more clearly defined turn.⁸⁶ For perhaps the first time, heredity itself – as a biological phenomenon with definable laws that governed not just human appearance but also behavior and morality, not just of individuals but, growing evidence showed, much larger populations as well – was widely accepted as a field worthy of scientific investigation and debate in social settings. Gregor Mendel's findings wouldn't be "rediscovered" until the year 1900, but in the final decades of the century, biologists would trade theories on the mechanisms controlling inheritance and on terminology for what would eventually become known as the gene. Foremost among these were Swiss botanist Karl Nägeli, who suggested a substance known as the "idioplasm," Francis Galton's "stirp," and, perhaps the best known, August Weismann's "germ-plasm".⁸⁷ Peter Bowler suggests that the history of the field in the last half of the nineteenth century was governed by a cultural and social atmosphere that had to be ready to receive radical ideas and technologies in order to make use of them.

Eventually, historians of science have largely agreed, the debate split into two camps that had crystallized by the mid-eighties translation and publication in English of Weismann's *Essays Upon Heredity* (1889). The first of these camps, led in large part by Herbert Spencer's application of evolutionary law to society at large and Samuel Butler's explorations of the subconscious mind and memory, believed in a neo-Lamarckian framework for inheritance in which the individual is as much at the mercy of social forces, education and interpersonal relationships as of his or her biological makeup. The second camp, led by Galton and Weismann and stemming from Darwinian pangenesis, held that inheritance was a fully materialist process, one that did not allow for environmental changes to affect the offspring of an organism – in other

words, the materialists asserted that only the traits that had been inherited from the prior generation could be expressed, though traits from previous ancestors could remain latent for unspecified periods of time. Even if the individual could adapt to different environments (and the extent of that adaptability was also under debate), none of those changes could affect the cells and nuclei which carried hereditary information. Whereas the neo-Lamarckians emphasized the malleability of the individual, his or her susceptibility to positive and negative influences in upbringing and environment, the materialists envisioned the individual as a far more rigid entity, one with inborn characteristics that would ultimately dominate his or her behavior, no matter what counter-influences (s)he might be exposed to. As Angelique Richardson's astute work demonstrates, the eugenic and social purity movements of the eighties and nineties stemmed directly from the biological determinist work of Weismann and his peers.⁸⁸ Richardson notes that the British eugenicist movement of the fin de siècle was dominated by studies like Galton's statistical criminology, a movement that was intimately linked to the two discourses I read in this chapter: the figure of the New Woman and the increasingly dominant conversation about nationalism.

Each of these camps, the neo-Lamarckians and the materialists, believed that heredity was an underlying factor in defining the family and the nation.⁸⁹ Indeed, there was no mainstream movement to speak of in the last quarter of the century which denied the influence of heredity itself. For the most part, theories of nationhood relied on *both* neo-Lamarckian and materialist systems of belief. The history of the nation was predicated upon various histories of domestication: both as the narrative of the family protected against that which fell outside its boundaries, and as a history of taming land, animals and other humans in order to become dominant. Whereas the first chapters of this project focus on the ways in which heredity is

expressed in intimate domestic spaces, this final chapter expands that space to include not just the family, the home, the garden or the farm, as in Chapters One and Two, or the sub-microscopic spaces within the body and the abstract, immaterial spaces within language itself, as in chapter three, but a new kind of “domestic” space – the nation. Following the 1848 revolutions across Europe, the Italian Risorgimento, and the unprecedented expansion of the British Empire, the last decades of the century witnessed increasing interest in what it meant to belong to a nation, to Britain, and to an empire. Patricia Murphy notes that “With the biblical version of creationism no longer providing the solace of a stable temporal continuum, Victorians instead sensed that time was a controlling but uncontrollable force. Humans were merely another form of animal life governed by the relentless and unsympathetic process of evolution and the vagaries of change found elsewhere in the physical world” (12). This chapter further explores Murphy’s notion of a “pagan” view of time that is “eternalized” and separated from the Christian, teleological, masculinist version of temporality that was dominant in scientific writings about the nation.

Most nineteenth-century historians of the human race agreed that Ernst Haeckel’s recapitulation theory could be seen at work in variations between civilizations. In Haeckel’s formulation, ontogeny, the development of the individual organism in embryo, mirrored the phylogeny of the species, its evolution through time. As applied to the doctrine of nationalism, recapitulationists posited that less “civilized” nations represented earlier phases of more developed (European) nations, which were the pinnacle of achievement in the human race. As has been well documented in postcolonial studies of the past several decades, the relationship between Darwinian evolutionary theory and theories of nationalism directly contributed to the racist and imperialist agendas of European nations from the Victorian empire through the

twentieth century. To imagine history in terms of recapitulation theory is to imagine it as a living narrative, to claim that one could watch the childhood of one's own nation play out in front of one's eyes. Indeed, it posits human history as a *Bildungsroman* of sorts, a narrative of development progressing towards maturity and self-reliance. African peoples might be primitive, according to popular opinion, but only because they were as yet immature, like a young Pip or David Copperfield, who had not yet learned to manage his time, money and relationships; someday, in the future – the *far* future – he could expect to flourish into that pinnacle of maturity, which of course happened to look suspiciously like the British middle classes.

The first half of this chapter thus examines the ways in which these narratives of nationhood draw on models of heredity and change rooted not just in evolutionary theory but in more traditional discourses of natural history as well. In the second section of this chapter I point to several earlier texts which begin to describe the relationship between domestication and national identities, particularly those that illuminate the curiosity in the first half of the century with “national” plants which could or could not cross manmade borders due to their natural virility or lack thereof. The bulk of my reading in this section, however, focuses on two texts in particular: Francis Galton's “The First Steps Toward the Domestication of Animals” (1865) and Walter Bagehot's *Physics and Politics* (1872). Galton's text proposes a link between successful control over a “natural” order of species and the nation's progress toward civilization. Only when humans place themselves in control of domesticated animals – and maintain the proper boundaries between species – can they be considered on their way toward becoming a civilized nation. Galton's theorization of the role of domestication in nation-building plays a key role in Bagehot's text, which we shall see roots the nation explicitly in an environment of controlled breeding practices. Indeed, I will argue that Bagehot takes Galton's model one step further and

includes control over *human* interbreeding and the domestication of women as a prerequisite for nation-building. Understanding these texts' underlying premise that women's bodies are the necessary site of domestication is essential for understanding to what extent Caird's claims for a mythic matriarchal past or "pretopia" function as a radical rewriting of contemporary scientific theory.

These fin de siècle revisions and Caird's attempt to place them within a fictional universe form the topic of the second half of the novel. The "New Woman," born of a set of novels and periodical debates in the eighties and nineties, was widely considered a perversion of the natural, biological and cultural functions of womanhood. The movement was led by a group of vocal feminists including Caird, Sarah Grand, and George Egerton, who insisted on a woman's right to choose who they marry, not to marry at all, to work in her chosen profession, to retain her property after marriage, and to initiate divorce in an unhappy or abusive marriage, was rightly considered a challenge to male authority in the family, in the workplace, and in the nation. The New Woman has received increasingly positive attention due to her reclamation by feminist critics in the last decades of the twentieth century; women like Ann Ardis, Ann Heilmann, and Sally Ledger carved out a space in which New Woman novels could be taken seriously by tying them in to political and literary contexts, particularly the rise of modernism. Angelique Richardson convincingly makes the case that many of the most influential New Woman writers relied as much on narratives of biological determinism and essentialized gender roles as their critics: our "unifying vision of the New Woman as a figure who privileged independence over family and who rejected social and sexual roles predicated on a politics of sexual difference" is actually not borne out by a careful reading of their fiction (8). Rather, she says, the novels almost universally advocated for a form of "rational reproduction" predicated on the social purity

movement, which in turn fused feminist concerns with late Victorian fears of degeneration and class contamination by the tainted and irredeemable lower classes. “Eugenic love,” she writes, “was the politics of the state mapped onto bodies: the replacement of romance with the rational selection of a reproductive partner in order better to serve the state through breeding” (8-9). Though she identifies Caird herself as a significant exception to the pro-eugenic movement among fin de siècle feminists, Richardson’s linkage between the New Woman, class anxieties and the state is a productive base from which to examine Caird’s own strategies in reclaiming a mythic feminist “natural” history. While the recovery of New Woman texts over the past several decades has produced a large amount of useful criticism and contextualization of the movement, Caird’s nonfictional rewritings of history and civilization, clearly styled on hereditary models like Bagehot’s, have been largely ignored. Though, as Richardson claims, she rejects a eugenic approach to nationhood by challenging notions of what scientists and historians have declared to be “natural,” she nonetheless retains a commitment to hereditary nationalism, to the notion that nations do have particular characters that have been passed down the generations. Caird’s model of society is a palimpsest written over by masculinist, patriarchal histories that suppress a much richer history in which society was governed by women, at a time when women were not defined by their ability to produce and nurture children. I will argue that Caird’s nonfiction and fiction revise earlier models of the female Gothic, in which the domestic space of the home stands in for women’s entrapment, placing them instead within the domestic space of the nation. This updated gothic allows her to attempt to undo the logic of her scientific predecessors by suggesting the ways in which its contradictions ultimately cannot coexist.

Caird’s *The Daughters of Danaus* (1894) allows us to examine more closely the relationship between hereditary discourse and nationalism at the fin de siècle. It is in her fiction,

I argue, that the specifically gothic nature of her attitude towards nationalism becomes fully evident, continuing the pattern of connection between heredity, domesticity and the Gothic I have presented in earlier chapters. *Daughters* tells the story of Hadria Fullerton, an aspiring Scottish musician who denounces marriage and motherhood as manmade institutions designed to stifle women's freedom and creativity. In a mesmeric moment, Hadria reluctantly agrees to marry Hubert Temperley, and they move to a sleepy village in the south of England where she bears two children and adopts a third, Martha, the illegitimate daughter of a deceased schoolmistress. Eventually, Hadria takes Martha and her nurse and flees to France, where she is praised as a musical genius – but one whose inherent talent can only blossom into genius if she renounces family and devotes her entire life to her vocation. Meanwhile, financial collapse forces her parents to move to England; the combined humiliation of their compromised finances and of having a daughter who has behaved scandalously by leaving her husband and children in pursuit of an artistic career results in an ill-defined but dangerous heart condition for Mrs. Fullerton. Hadria returns, and the doctor informs her that any action that opposes or upsets her mother will result in instant death. Hadria subsequently abandons her musical career and settles down to life in the village, but conducts a flirtation with the vaguely villainous Professor Theobald out of boredom and resignation. When Hadria ends the flirtation with Theobald, he reveals that he is Martha's illegitimate father, and punishes Hadria by taking away the child. She is devastated, but unlike the protagonists of other New Woman novels (*The Story of an African Farm*, *The Odd Women*), it is not Hadria who dies but her childhood friend, anti-vivisectionist and optimist Professor Fortescue.

In my reading of the novel, I will examine a series of scenes in which Hadria's Celtic heritage is emphasized as a spur to action, arguing that Caird draws a parallel between the Celts

and the primal matriarchal society she theorizes in periodicals. Relying on Michael Hechter's classic study, *Internal Colonialism: The Celtic Fringe in British National Development, 1536-1966* (1975), I argue that the "Englishness" of Scotland at the end of the nineteenth century attempts to dominate both the primal Celtic and primal femaleness within Hadria, who is torn between biological/materialist and environmental notions of heredity. Outside of her native Scotland, Hadria becomes like a displaced species; she cannot thrive or adapt to a new environment. Heredity itself is never in question in this intellectual environment; it no longer serves as a taint or a threat in and of itself, if left with the unfettered freedom to be expressed or otherwise. But Hadria demonstrates that when her biological gender, like her national identity, cannot be expressed in the ways she is allowed to determine, both the individual organism and the nation as organism are bound to deteriorate. By tracking this history across the century, I will return full circle to the notion of the domestic itself, and to its feminine connotations in the nineteenth century. The notion of domesticity in the nineteenth century is rooted in the female Gothic and the image of the woman enclosed within the home, as I have noted in my reading of *Wuthering Heights*. As the century progressed, the woman as guardian of the domestic became ever more important – even as the male subject became the domesticator, and the husband came to rule husbandry: the one who controls the proliferation of species, crop, and land. By connecting these narratives to the larger one of history and nationalization at the end of the century, this chapter finally questions what the role of the woman is in the nation itself. The New Women asked if woman's biological identity as female liberated her or entrapped her; the answer, it seems, is both. The discourse of nationhood will ultimately take that question one step further, and ask if the (New) woman's identification as member of a particular nation liberated or entrapped her. My reading of *Daughters* will argue that Caird herself was ambivalent about the

answers to these questions. Hadria remains committed to her Celtic roots, while her friend Valeria remains firmly eugenicist and her beloved friend Professor Fortescue suggests a completely ahistorical attitude toward Nature and heredity. These conversations, I will argue, jangle discordantly throughout the novel without coming to a real conclusion. In the end, no theory can change the fact that for Caird, the nation, like the home and garden, is a site of women's containment. Hadria's pretopia ultimately cannot mesh with Fortescue's utopia of biological transcendentalism, but it does do the important work of suggesting a challenge to the scientific taxonomies which classified women as another species to be domesticated.

II. A brief history of domestication: Crosscurrents of biology and history in the late Victorian era

The opening lines of Kipling's infamous 1899 ode to imperialism, "The White Man's Burden," confirm that the question of the connection between the two was alive and well at the end of the century: his injunction to "Send forth the best ye breed" refers quite openly to eugenic discourse and the power of positive eugenics to influence the world for the better. But the "fluttered folk and wild," the "new-caught, sullen peoples, / Half devil and half child" imagines the colonizers as breeders or botanists, taming and transforming colonized people as easily as Darwin experimented with his own "fluttered folk," his famous pigeons. These early investigations culminate eventually in Kipling's brazen defense of imperialism, but the final phase I wish to investigate in this section occurs slightly earlier in the period, within the racialized histories that were produced during the sixties and seventies. These histories, I argue, rely heavily on notions of where, when and how often species breed, and to what extent humans are able to control these processes – both in animals and amongst themselves. That discourses of biology, particularly Darwinian evolutionary theory, shaped the way Victorians thought about

the history not just of the species but of society and race is not a new idea. Herbert Spencer's works, for example, made it immediately clear to contemporaries that *On the Origin of Species* (1859) produced a new series of questions about how society advanced along a teleological timeline of primitive to civilized. The role of geologists such as Robert Chalmers and Charles Lyell had already introduced the notion of "deep time" earlier in the century; once Darwin's work proposed a model for species change that occurred in deep time, historians were forced to reconsider and revise narratives of human history that did not account for millennia of gradual change.⁹⁰ In this section, I will focus on three different phases within the nineteenth century in which biologists laid the groundwork for this new model of history, and in which historians, as a result, incorporated the traditional discourses of natural history into their narratives.

In the first of these phases, scientists made a series of observations about the behavior of species – namely, the ways in which they changed (for better or for worse) when they crossed national boundaries. This trend, I argue, is the first iteration of a debate between Lamarckism and materialism predicated specifically on the issue of nationalism and earlier models of imperialism. Tracking behavior of non-human species across borders implied that *place* was an essential component of character; as such, these movements allowed scientists to define a kind of deep history based on and encoded by species mobility. This set of observations eventually resulted in the second phase, a turn toward a set of questions about the history of domestication itself: when did humans begin to domesticate plants and animals? What made a species easy or difficult to domesticate? Did different cultures perform the process differently, or did the current set of tame species descend from a past in which the races were unified, a period even older than the migration of peoples and their settlement in different parts of the world? More insidiously, these questions indicate a connection for nineteenth-century scientists between domestication and

civilization, a connection made clear by Francis Galton: did “primitive” peoples need to be domesticated by Europeans? Though earlier thinkers had imagined lengthy and detailed narratives of development, the decades after the publication of the *Origin* saw those narratives explicitly revised to incorporate the language of domestication and the assumptions that humans actually domesticate one another as nations arise. An examination of Walter Bagehot’s popular biologic-historical work, *Physics and Politics*, will reveal the ways in which Victorian attitudes toward nation-building and imperialism were ultimately inseparable from their attitudes towards domestication, all of which were strongly gendered. The project of forming the Empire, in other words, becomes akin to the work of a farmer who must turn over a wild field to make it arable, or to manage the husbandry of his animals in order to produce a healthy and economically productive flock.

Natural historians had long been fascinated by the unpredictable behavior displayed by plants and animals when they crossed national and cultural boundaries. Even before the notion of the survival of the fittest came to dominate natural history, biologists and observers noted that some species were far more adaptable than others; some were so successful at breeding as to make themselves nuisances, and some were utterly incapable of transplantation. Some became weeds or pests, and some had to be cultivated assiduously for even a modicum of success in establishing a new population. “Weeds are not good or bad;” Alfred Crosby reminds us; “they are simply the plants that tempt the botanist to use such anthropomorphic terms as aggressive and opportunistic” (150). Indeed, his important work emphasizes that the often unintentional spread of what we would now phrase “invasive” species by would-be colonizers or “explorers” has the potential to devastate the health and wealth of native peoples.⁹¹ His own anthropomorphization of weeds reflects his claim that Europeans themselves have acted, both

biologically and culturally, as an invasive species themselves by spreading to new lands and breeding so prolifically that they squeeze out indigenous cultures: “Weeds are very combative,” he continues. “They push up through, shade out, and shoulder past rivals. Many spread not be seed as much as by sending out rhizomes or runners along or just below the surface of the ground” (168). Their very hardiness and “willingness” to grow in any conditions made them biologically successful to the extreme, but culturally they became a nuisance, an example of domestication grown out of (Western) man’s control.⁹²

Indeed, an examination of a series of remarks about transplanting species from one continent to another can tell us a good deal about how the biological histories of the mid-century came to be. As early as the middle of the eighteenth century, Carl Linnaeus compared plant spaces, which were finely differentiated and therefore likely to be related in some respect, to “territories on a geographical map” – that is, placed along a continuum of likeness and relatedness (40). Linnaeus’ system of taxonomy is equally dependent upon “travelers” who “have gone to remote regions to investigate plants” and “Adonises” who “present the *cultivated* vegetables of a particular garden” (19-20). By giving the two equal importance in his system, he charts a global map defined not be countries, race or languages, but by the plants themselves; thus the connection between geography and domestication is embedded within the very language used by botanists and scientists to communicate with one another. At the turn of the century, Jean Baptiste de Lamarck took Linnaeus’ observations one step further, and his musings on the relationship between location and character helped in large part to determine his philosophy on the inheritance of acquired characteristics. “Every botanist knows that plants which are transported from their native places to gardens for purposes of cultivation, gradually undergo changes which ultimately make them unrecognizable,” he notes in the most famous section of his

Philosophie Zoologique (109). A vital part of the process of domestication, argues Lamarck, is taking plants or animals out of their native environments and “rearing them in various environments and different countries” (110). Species are born of their surroundings; it is only by observing the effects of environmental change on domesticated species – their reversions to a feral state, their success or failure based on the ability to adapt – that we can determine the relatedness of the species on a Linnaean continuum.

By the 1830s, Charles Lyell, originator of a formalized science of geology and of what is known as “deep time,” would write his opus on the uniformitarian nature of the earth’s history. Though Lyell was a geologist by trade, he was nonetheless deeply interested in the relationship between species and geographical location, if only to prove that the earth’s stable condition throughout history was a series of minor variations – as opposed to earlier catastrophic theories, which argued that the earth’s geographic features were formed by floods or volcanic eruptions. It was actually the movement of species from one area to another that caused change, argued Lyell, which eventually led to much larger environmental shifts. Indeed, he goes so far as to say that “some of the qualities of particular animals and plants may have been given solely with a view to the connexion which it was foreseen would exist between them and man” as evidenced by the large number of individuals and species “in subjection to the human race” (214). Furthermore, just “as man, in diffusing himself over the globe, has tamed many wild races, so also he has made many tame races wild” (217). Though he clings to an unspecified agent in the awkward use of the passive present modal perfect construction, the complex relationship between humans and other species is determined in large part by human mobility, which in turn becomes the basis for the larger arguments for species extinction and a changeable universe:

Next to determining the question whether species have a real existence, the consideration of the laws which regulate their geographical distribution is a subject of primary importance to the geologist. It is only by studying these laws with attention, by observing the position which groups of species occupy at present, and inquiring how these may be varied in the course of time by migrations, by changes in physical geography, and other causes, that we can hope to learn whether the duration of species be limited, or in what manner the state of the animate world is affected by the endless vicissitudes of the inanimate. (234)

The “geography of plants,” as Lyell terms it, may be due to currents of wind and water, but ultimately Lyell articulates the problems with species mobility in terms of man’s intentional and unintentional transportation of them. Comparing different species that become “noxious weeds” or naturalized crops when transported across national or cultural lines reveals the ways in which humankind itself is part of an extensively complex biosystem. One gets the sense, reading Lyell, that *mobility* is in fact the driving force of geological change itself, that it has at least in part contributed to the geographic boundaries of today – a use of the Lamarckian theory of environmental influence in order to dramatically invert its conclusions. Only by reading the present carefully can geologists determine the past – and, perhaps, the future. As we shall see, Lyell’s notion of “reading” a long-range history through present conditions would influence later ethnographers, who could study the practices and mobility of *human* groups in order to describe a European history in deep time.

Of course, some of the most compelling text on the relationship between geography and reproduction comes from Darwin’s *On the Origin of Species*. Darwin was keenly interested in observing the ways in which the shape of the land also helped to shape its species, particularly in

the case of islands – both his beloved Galapagos and his own native island. Indeed, he begins the work by musing on how the first domestication came about: “...how could a savage possibly know, when he first tamed an animal, whether it would vary in succeeding generations, and whether it would endure other climates?” (25) Even “savages” participate in domesticating other species, he continues, whether they understand the processes of inheritance or not (38-9). Nonetheless, Darwin makes it perfectly clear that national, economic and cultural factors do make a difference to the development of a species, from their changing value in a particular market to political trends toward land enclosure or clearance (43). Plants in a “state of nature,” which in practice often meant English varieties imported elsewhere, had a tendency to “run wild” once outside the civilizing influence of the home country. “[N]o one supposes that the fertility of these animals or plants has been suddenly and temporarily increased in any sensible degree,” he writes of imported plants breeding prolifically (63), but the non-English is nonetheless quite clearly posited as being “wild,” outside civilization, entirely free from the more evolved specimens of Britain herself. English growers, on the other hand, are advanced enough to sustain “exotics” when under the care of a gardener, but many of these can “never become naturalized, for the cannot compete with our native plants, nor resist destruction by our native animals” (66). The vigor of the English constitution does not allow for the uncouth, overly-prolific breeding that occurs in foreign lands. Darwin thus indirectly suggests a “proper” rate of reproduction innate in English species, one that is neither embarrassingly prolific nor entirely barren – one that, in other words, reflects the ideal British family.

Though there are of course moments after 1859 when naturalists mention the possibility of species migration, I want to suggest that from the sixties to the end of the century a different kind of discourse gradually stemmed from these earlier observations, one that resulted in new

models for human history and ethnography based explicitly on the findings of natural historians writing about domestication in different cultures. Geographical origin had already been infused into the essential character of a species, but this new work turned towards the stakes of human interaction with mobile species and their ability to tame and normalize species themselves. Francis Galton's "The First Steps towards the Domestication of Animals," given at the Royal Society in 1865 and published widely thereafter, provides a transition between earlier observations about the process of domestication and the fin de siècle biologized histories by applying the assumptions of recapitulation theory, that "savage" cultures are like children (and women), to ethnographic narratives about the history of domestication itself. "The domestication of animals is one of the few relics of the past whence we may reasonably speculate on man's social condition in very ancient times," begins Galton – but the rest of the paper reveals that his methodology relies on observation of *current* conditions of domestication in Africa, the Americas and the Antipodes, with the implicit assumption that insight into the present-day colonies can shed light on the ancient history of Europeans (122). Taming an individual animal, or a species, is no act of genius, he continues, but arises out of environmental conditions, instincts of both animals and humans, and the innate temperament of all parties (122-3). Indeed, because peoples outside the sphere of "civilization" are closer to animals in nature, and therefore understand them better, they are actually more successful at capturing them alive – though taming often requires the foresight and patience of the rational European (131). In fact, it is often external demand from more civilized nations for animals as curiosities or items of collection that motivates their savage neighbors to capture them in the first place (129). Galton thus positions the art of capture or hunting with pre-civilized cultures but that of domestication itself with

slightly more civilized nations, noting that a settled and stable life is a precursor for the taming process.

Importantly for my argument in this chapter, Galton's theories of domestication rely on a set of contradictory assumptions about the nature of women and their role in domestication, one that foreshadows arguments about the natural history of women that would be made in the last decades of the century. On the one hand, domestication seems to be a particularly masculine urge, rooted as it is in the prestige associated with having a variety of animals at one's mercy and at the pleasure of possession illustrated by chiefs of native tribes. On the other hand, as we have seen, nineteenth century constructs determined that woman's instincts for nurture, and her emotional nature, makes her particularly well suited not for the act of taming but for *keeping* tame, for nurturing. According to "an ancient traveler," Galton says, Indian women of South America "breed fowl and other domestic animals in their cottages [but] they never eat them: and even conceive such a fondness for them, that they will not sell them, much less kill them with their own hands," and if witnessing the death of one of these pets, a woman "shrieks, dissolves into tears, and wrings her hands, as if it had been an only son" (124). Similarly, a Mr. Woodfield reports that in Australia, where kites are highly valued, a woman who witnessed one shot at the hands of a European visitor "wept bitterly, and not even the offer of the bird could assuage her grief, for she absolutely refused to eat it" (127). Mothering itself, the maternal instinct, has roots deep in the biological as well as social history of the species, Galton implies. These examples allow him to claim that women's fondness for pets is directly related to their role as mothers of (human) children, both of which are of course natural and healthy.

However, Galton often positions these uncivilized women as nurturing mothers whose benevolent instincts know no boundaries, even those between species. To think of a pet like a

child is one thing; to treat it like a child is altogether more disturbing to Galton and indicates the inability of civilized women to separate species into their proper order. For example, Galton quotes Sir John Richardson, who notes that Indian women raise bear cubs and feed them by “giving them milk from their own breasts” (124). Similarly, he says, “The Australian women habitually feed the puppies they intend to rear, from their own breasts, and show an affection to them equal, if not exceeding, that to their own infants” (127); while “Professor Huxley informs me that he has seen sucking pigs nursed at the breasts of women, apparently as pets, in islands of the New Guinea group” (127). These passages establish women’s instinctual, biological urges to nurture, while implying that civilization is necessary to keep those urges in check. Women who provide milk to animals are at once instinctual super-mothers and failed mothers, because they are using nutrients intended for their own offspring on mere pets. On the other hand, he says, one of the main uses of domesticated animals is in providing milk for children: “It is marvelous how soon goats find out children and tempt them to suckle. I have had the milk of my goats, when encamping for the night in African travels, drained dry by small black children, who had not the strength to do more than crawl about, but nevertheless came to some secret understanding with the goats and fed themselves” (135-6). Galton’s carefully constructed accounts echo the earlier fears of a primal, hyper-fertile environment in which breeding has run entirely amok, crossing boundaries between species and subverting the natural order. His Gothicized description of the “small black children” who could create a “secret understanding” with not just any animal but the devilish goat and his attribution of human agency to the goats themselves reveal that fertility itself – of women and animals – can become threatening to political and social entities, making British women’s role as proper mothers all the more important for social stability. Animals suckle from women, children suckle from animals – the pre-civilized world is a jumble of

inappropriate relationships between species, a projection of the fears of European colonizers (of land, of peoples, of species, of women) onto a primal geography. As we shall see, Mona Caird's work both revels in these Gothicized fears of mythically fertile women and subverts them by describing the English landscape, manicured and enclosed, as the truly frightening one.

Galton locates his studies only outside of Europe and leaves his conclusions about the relationship between the civilized and uncivilized worlds implicit. Walter Bagehot's *Physics and Politics, or Thoughts on the Application of the Principles of 'Natural Selection' and 'Inheritance' to Political Society* (1872), on the other hand, openly declares the significance of this geological reading of humans for European readers and thus serves as the capstone for this short history of domestication. Bagehot's text is one of the first, and certainly one of the most widely-read, to theorize not just the beginnings of organized human society (which had been a topic of public debate since at least the Enlightenment) but of nations as political entities in the modern sense; in other words, he brings Galton's tribes into present-day Europe. In the final part of this section, I will trace the model of nation-building Bagehot constructs and the ways in which it relies on gendered notions of domestication, familial relationships, and the nation itself – notions, I will argue in the second half of the chapter, which Mona Caird deliberately overturns. Bagehot begins his work by evoking a geological time scale, noting that "Science tries to find in each bit of earth the record of the causes which made it precisely what it is; those forces have left their trace, she knows, as much as the tact and hand of the artist left their mark on a classical gem" (4). Indeed, he says, man himself has become a geological object of study, resulting in a science which

tries to read, is beginning to read, knows she ought to read, in the frame of each man the result of a whole history of all his life, of what he is and what makes him

so – of all his forefathers, of what they were and of what made them so. Each nerve has a sort of memory of its past life, is trained or not trained, dulled or quickened, as the case may be; each feature is shaped and characterized, or left loose and meaningless, as may happen; each hand is marked with its trade and life, subdued to what it works in – *if we could but see it*. (5, Bagehot’s emphasis)

In this passage, Bagehot uses the notion of bodily memory, a form of Lamarckian inheritance articulated by Samuel Butler in which the cells of the body have an actual “memory” that can store information acquired by previous generations, to connect heredity and geology.⁹³ The two discourses share the goal of garnering information about the past (of a family or individual, in the first case, and of the earth itself, in the second) by reading the “features” of the present. Geology helps not to define heredity but to “render it distinct,” so that the history of a people becomes fully intertwined with the history of their land: geological changes over time help to shape the character of the individual, the family, and eventually, via Lamarckian inheritance of acquired characteristics, the nation.

Thus Bagehot defines the nation itself as a construct resulting directly from the logic of biological inheritance and family resemblance. The nation is “a *like* body of men, because of that likeness capable of acting together, and because of that likeness inclined to obey similar rules” (23); in order for the nation to develop that likeness, its inhabitants must band together against outsiders – and *breed* together so that their resemblance is both biological and social. Because the Darwinian principle of natural selection also applies to human history, any form of aggregation, no matter how loose, would give one tribe or society a competitive advantage over its neighbors and make it therefore more likely to survive as a polity and eventually develop into a nation. The ultimate trajectory of the civilized nation is toward what Bagehot calls “The Age of

Discussion;” the modern age and the diversified nation-state require families to evolve beyond the notion of mere resemblance. In order to become truly powerful, the fully developed nation must, in other words, be able to absorb multiple viewpoints and tolerate dissent. Contemporary “savage” civilizations, including “India, Japan, China, almost every sort of Oriental civilization” are victims of “arrested development” in this schema – unlike their more advanced European neighbors, they do not “preserve and use the fundamental peculiarity which was given by nature to man’s organism as to all other organisms”: the capacity for variation (57). Though there is an undeniable similarity between descendants and their progenitors, Bagehot says, the former will never be exactly the same as the latter. “The working of nature in making generations is a patchwork – part resemblance, part contrast” (57); in cases of arrested development, variations are crushed tyrannically before they have the chance to develop. Indeed, Bagehot reformulates Galton’s earlier descriptions by applying them to humans themselves: “A savage tribe resembles a herd of gregarious beasts,” one in which the imitative powers are far stronger than the creative powers, one that naturally eliminates any sources of variation – and one, according to the logic of Galton’s paper on domestication, that is particularly prone to domestication. “Savages *pet* their favourite habits,” Bagehot continues, “[...] and preserve them as they do their favourite animals” (109). The logic of the savage relies on imitation, resemblance, and descent; the logic of the supposedly more sophisticated European, on the other hand, can move into complex webs of variation and dissent. The savage tames animals – but the civilized man tames the savage.

Thus, hand in hand with his reliance on the family as the basis for the nation, Bagehot draws from the kinds of theories about domestication we have seen illustrated by Linnaeus, Lyell, Darwin and Galton to describe “savages” themselves. In his explanation of primitive societies in what he calls “The Preliminary Age,” he notes that “the domestic animals of Europe

have, since what may be called the discovery of the *world* during the last hundred years, run up and down it” (19). European races are now the hyper-fertile ones, since that fertility and virility is required by natural selection, which defines success as the ability to breed. Indeed, the English rat has become so invasive that “nothing but a complicated rat-miracle could ever root him out” (19). The colonial project is quite explicitly rooted in the biological competition between species; neither the tamed nor the wild species of “savages” can compete with the more highly evolved European varieties: “Modern science explains the wasting away of savage men; it says that we have diseases which we can bear, though they cannot, and that they die away before them as our fatted and protected cattle died out before the rinderpest, which is innocuous, in comparison, to the hardy cattle of the Steppes” (51). Any imported disease introduced to a relatively enclosed civilization not accustomed to it is in danger of wreaking havoc on the population, as even English farmers learned to their chagrin. But civilization writ large is also a process of taming, of domestication, literally and figuratively. The evidence of the strength natural to European civilizations is, in fact, is that “Man, being the strongest of all animals [...] was obliged to be his own domesticator; he had to tame himself” (55) – and this taming happens only through an evolution of social ties beyond the nuclear family into legal, political, and religious bodies.

Nonetheless, any successful nation, no matter how civilized, depends on a shared outlook in spite of dissent, or it would dissolve, and that shared outlook is hereditary: though we hesitate “to attribute so marked, fixed, almost physical a thing as national character” to causes like habit, Bagehot says, the hereditary nature of habit itself makes the distinction meaningless (110-111). “The mind of the parent (as we speak) passes somehow to the body of the child. The transmitted ‘something’ is more affected by habits than it is by anything else. In time an ingrained type is sure to be formed, and sure to be passed on” (111), he continues, closely echoing the Butlerian

theory of heredity as a kind of bridge between mind and body. As we shall see below, this insistence on family as not only the social but also the biological and hereditary basis for all aspects of the modern political unit, even the social aspects of that unit, has definite consequences for how Bagehot constructs the nation as a gendered space. By locating the traditional family unit (as defined by late Victorians) at the ground level of organized society, Bagehot emphasizes that the entire sociopolitical structure of civilization is based on patriarchal authority. He quotes Oxbridge historian of law Sir Henry Maine's "Patriarchal Theory" at length, which is based on the words of Old Testament scripture and locates the first form of authority-based social arrangement on the father's dominion over household, property, children, slaves and wife (16). As societies expanded and created ever larger family units, they entered into an era of conflict, in which they fought their neighbors for supremacy. Bagehot locates one of the most effective and important uses of conflict not in weaponry or political strategy but in intermarriage: "Most historic nations conquered prehistoric nations, and though they massacred many, they did not massacre all. They enslaved the subject men, and they married the subject women. No doubt the whole bond of early society was the bond of descent; no doubt it was essential to the notions of a new nation that it should have had common ancestors," even extending in some cases to the adoption of culturally exogamous children (71). The most effective way to incorporate a people into a national body is to do so genetically, although the prospect of intermarriage with less successful groups was a far more frightening one for the Victorians. Here the nation is, quite literally, the family writ large; this is perhaps the most striking instance of Bagehot's conflation of these two forms of the domestic.

Bagehot continues that this second stage of civilization "is strewn with the wrecks of nations which have gained a little progressiveness at the cost of a great deal of hard manliness"

(65). The nation in its youth was not only dominated by men but was gendered male itself: it relied on brute force, violence and coercion. The early days of “domestication” in its sense of nation-building relied on this “hard manliness” – but the civilizing mission, as we have seen in Chapter Two and in Galton’s piece, was traditionally the realm of nurture, education, and tolerance: the role, in other words, of Victorian woman. Yet the age-old issue of paternity haunts Bagehot; in some prehistoric communities, he mentions rather dismissively, matriarchal rule was law because only motherhood could be verified, and not fatherhood, and “the child kept the condition of the mother, whatever that condition was; nobody inquired as to the father; the law, once for all, assumed he could not be ascertained” (127). As we shall see, this is precisely the notion Mona Caird would use to call for a radical return to a past of matriarchal dominance. But for Bagehot, female rule was only proof that a particular group was not equipped to become a successful political entity and eventually a nation:

A cohesive “family” is the best germ for a campaigning nation. In a Roman family the boys, from the time of their birth, were bred to a domestic despotism, which well prepared them for a subjection in after life to a military discipline, a military drill, and a military despotism. They were ready to obey their generals because they were compelled to obey their fathers; they conquered the world in manhood because as children they were bred in homes where the tradition of passionate valour was steadied by the habit of implacable order. And nothing of this is possible in loosely bound family groups (if they can be called families at all) where the father is more or less uncertain, where descent is not traced through him, where, that is, property does not come from him [...] An ill-knit nation which does not recognize paternity as a legal relation would be conquered like a

mob by any other nation which had a vestige or a beginning of the *patria potestas*.

(128)

Bagehot is referring here to the failure of the Jewish nation, caused, he says, by its matrilineal nature, its unwillingness to settle and root itself to a particular place, and its unwillingness to protect its land and people with violence. To “conquer the nation in manhood,” in all its senses, becomes Bagehot’s historical project. His understanding of nation-making, as we see in the passage above, leaves no room for women other than as the unmentioned bearers of children, and no room for daughters at all. That the nation was a masculine project rooted in patriarchal theories of kinship and family structures meant, as we shall see in the next section, that it, too, would become a defining space of gothic containment for contemporary women.

III. Hadria’s walls: Mona Caird’s feminized and Celticized narratives of history

The New Woman was a figure of change in turn of the century Britain. Mocked in the popular press as unwomanly, more interested in her bicycle and trousers than in her children, the New Woman was both frightening and ridiculous in her perceived attempts to subvert the traditional Victorian family structure. As Talia Schaffer notes, the figure was invented as an ideal in the feminist press, and only became ridiculous when she traveled to the mainstream press.⁹⁴ Indeed, critics have long recognized that the New Woman was a “character” of the periodical press well before she appeared in novels – and perhaps before she had really become prominent in “real” Victorian society. As Ann Heilmann notes, her origins in the press meant that the New Woman was never a pure concept to begin with, as they “became submerged in a complex process in which gendered and political homogeneity, articulated structurally through a diversity of forms, made way for gendered and ideological heterogeneity” (6).⁹⁵ Ann Ardis argues that the conflict between press and fiction, literature and reality, is at the heart of the New Woman

project, whose aims she articulates as to “reject the reality principle governing the tradition of literary realism. Instead of assuming that art imitates reality and re-presents something both external and prior to the work of fiction, these authors figure desires that have never been realized before; they imagine worlds quite different from the bourgeois patriarchy” (3).⁹⁶ Ardis’ work is an important predecessor for my reading of Caird, which focuses on the ways in which she reconstructs and revises natural histories and their empiricist strategies. In *New Woman, New Novels*, Ardis notes that the naturalist novels of the late century insisted that a novel’s value rested upon its accuracy, its attempt to provide an empirically verifiable reading which made truths about society accessible to readers (32, 37). Whereas culture (as opposed to nature) had long been feminized, the naturalist school of realism coopted it as masculine, making the feminized New Woman novel even more marginalized (55). Ultimately, my reading of Caird begins from Ardis’ claim that New Woman literature is

not interested in re-presenting reality. They figure it: create it, imagine it. And such imaginings, it is worth emphasizing, are in no way constrained by their knowledge of what has been done within the tradition of domestic realism. Rather than establishing a transgressive relationship to literary convention, these writers simply desire something else. Their figurations are unmediated by the domestic ideology informing nineteenth-century realism. (118)

Whether this is desirable or even possible is an unanswerable question – but I will argue that Caird manages to do this by herself co-opting the language of ethnography, empiricism, and natural history.

The other predecessor to this argument is Ann Heilmann’s claim that New Woman fiction was able to challenge the boundaries between literature and political writing. Caird in

particular attempts to rewrite patriarchal myths, she notes, though our readings differ substantially in the evidence we provide for that claim (158).⁹⁷ The argument that follows posits that Ardis' and Heilmann's claims may not be as contradictory as they seem; indeed, I will demonstrate that Caird paradoxically uses the language of sociological, scientific and political writings to subvert not only their ideas but also their claims to empirical truths in the first place. This results, in her fiction, in a series of contradictions and multiple realities that impossibly coexist with one another – in other words, she employs a gothic taxonomy that undermines the nature of fiction and of science at once.

Caird produced a series of articles in the late eighties and early nineties, shortly after the publication of the first “New Woman” novel (Olive Schreiner's *Story of an African Farm*), which offered a direct challenge to the “natural” model of marriage so dominant in Victorian society. As critics have long noted, Caird's publications set off a firestorm of debate over topics as diverse as the role of instinct in the individual, that of the individual in the family and in society, free will and determination, and the correct balance between liberty and duty, to name but a few. I read Caird's essays “Marriage” (1888) and “The Emancipation of the Family” (1890), as essential theoretical and formalistic precursors to her best-known novel, *The Daughters of Danaus* (1894). By examining these documents, I will argue that her broader arguments about the injustice and inefficacy of the contemporary institution of marriage rewrite earlier Victorian texts, such as those described in the previous section, which posited the discourses of national identity, history and domestication as intrinsically related. Caird, I will argue, imports these earlier connections and then uses them to undo the very logic they are attempting to support. Ultimately, however, her novelization of these conflicts concludes with an

unresolved debate over the biological role of heredity and a set of contradictory strategies for escaping the debate altogether.

In her earlier essays, Caird focuses on constructing a primitive past in which society is organized around the figure of the matriarch – precisely the arrangement Walter Bagehot had declared nearly two decades earlier to be incapable of producing a viable society. The modern notion of marriage, she argues, traces back only as far as the Reformation, when Luther and his followers reduced the bond from an intellectual and spiritual one to one that emphasized property, the seeds of a growing middle class, and absolute chastity beforehand (“Marriage”). Indeed, modern marriage is underwritten by commercialism and has become as much a business affair as a matter of the heart, which restricts women in choice and action. History and Science, directed by female Muses but controlled in the Victorian era by men looking out for their own interests, insist that women have an innate nature that urges them toward become nurturing and complacent Angels in the House (186). In direct contradiction to the claims of History and Science stand “myths and folk-lore” which almost universally point to a “matriarchal age” (“Marriage” 187). Whereas Bagehot offers the firm evidence of scripture and male-written history as evidence that any meaningful social organization began when men took control of the family, Caird not only upholds but cherishes the non-empirical, non-verifiable sources of oral history and tradition. The age in which the woman was valued on her own terms and held equal by her husband was not dominated by force, she continues, but by equality. Though she argues vociferously against a universal human “nature,” Caird nonetheless imagines a mythic past that is shared by peoples across the globe. As we shall see in the final section of the chapter, this mythic, primal past, which Caird extends into the present of some “primitive” tribes of her own

time, remains a latent source of power for women, even as it contradicts her own theories about the relative unimportance of heredity and tradition.

In a number of her periodical pieces, Caird draws a direct connection between this matriarchal past and women's role in the process of domestication. As we have seen from the work of male naturalists in the first half of this chapter, women were nurturers and denizens of the domestic – but not domesticators; that role was reserved for the technical expertise and muscular power of men. Caird's work seems to embrace the culturally accepted logic – not of a universal heritage, this time, but of women as domestic goddesses – and turns it on its head so it becomes a source of power and pride. Women, she argues, went from being prime domesticators, powerful figures who helped to shape cultural and national destinies, to objects of domestication themselves. In the matriarchal age she describes in "Marriage," she notes that "The mother was the head of the family, priestess, and instructress in the arts of husbandry. She was the first agriculturalist, the first herbalist, the initiator (says Karl Pierson) of all civilization [sic]" (187-8). She reiterates the point in "Emancipation," in which she claims that it is "Not 'nature,' apparently but the mode of making a livelihood, [that] determines whether the mother or the father shall hold the family or group together and hand down the name to its members" (696). Since "Agriculture was the women's industry" and "the herding of cattle or hunting of wild animals that of men, who seem not to have meddled with husbandry till comparatively modern times," women became the determining factor for tracing systems of kinship (696). The moment when this relationship shifted to the better-known system of patriarchal rule espoused by Bagehot is the moment when hunters "stole" women from other tribes and took literal possession of them. These were men who "became wandering hunters" as opposed to those who "remained at home to till the soil" – in other words, the moment of change occurred when men began to

reject a female economy of peaceful domestication (“Marriage” 188). Women’s power has always been linked to their familiarity with herbs, their closeness to the land, Caird argues; “It took centuries to deprive the woman of her powerful position as head of the family, and of all the superstitious reverence which her knowledge of primitive arts and of certain properties of herbs, besides her influence as priestess, secured her” (188). Essentially, men took over the task of domestication at the same time they took over the authority over family and society, and consequently turned the notion of domestication upon women themselves. Women were not only bought and sold as though they were animals, Caird says, but were actually used in some cases *in place of them* to till fields like cattle (188). The mysticism attached to women’s knowledge of husbandry continued, though the knowledge itself died away, leaving woman a revered but utterly useless entity.

Caird thus proposes two models for domestication, both gendered, and both at the heart of the central conflict in *Daughters*. Her critique of the modern treatment of domesticated animals is worth quoting at length, though her anti-vivisection work has received extensive critical attention:

We chain up a dog to keep watch over our home; we deny him freedom, and in some cases, alas! even sufficient exercise to keep his limbs supple and his body in health. He becomes dull and spiritless [...] He has not been used to liberty or happiness, and he cannot stand it. [...] In the same way we have subjected women for centuries to a restricted life, which called forth one or two forms of domestic activity; we have rigorously excluded (even punished) every other development of power; and we have then insisted that the consequent adaptations of structure, and the violent instincts created by this distorting process are, by a sort of compound

interest, to go on adding to the distortions themselves, and at the same time to go on forming a more and more solid ground for upholding the established system of restriction, and the ideas that accompany it. We chain, because we *have chained*.

(“Marriage” 186-7)

Women are drawn into the plot, and become their own prison-keepers. Tradition is all too often mistaken for heredity, particularly in a Lamarckian system which implies that they are or may become one and the same. Caird’s work thus abounds in anti-hereditary sentiment; she rejects it as part of a socially constructed theory to keep women in their place, one backed by the male-dominated industry of science and at the very heart of history. If heredity is strictly materialist, her work implies, then it must hearken back to the earlier moment of the mother-age. If it is more plastic, as the case of domestication seems to indicate, then it is not a natural mandate and can be overcome by a change in environmental conditions.

It is worth noting Caird’s observation that granting women freedom is commonly thought to threaten the stability of both the nation and the empire, though in actuality, both in ancient Rome and Victorian Britain “it was not the freedom of women which had plunged the nation into corruption” but rather the policies of a patriarchal ruling class (“Emancipation II” 24). For Caird, marriage equality is, in fact the bedrock of the healthy and competition natural selection envisioned by Bagehot: “As soon as we do apply it boldly, unswervingly, the present marriage system stands arraigned, offending as it does against every principle of liberty and equality, against the rights and duties of the individual; against the strength and vitality of the state, which lives or languishes as its individuals grow or decline in the qualities of independence, original power, and vigor of character” (“Emancipation II” 34). National character is thus an inseparable component of individual identity for Caird. The individual may deviate from that character, but

the modern construction of society stamps out the variation necessary for the health of the sex, the nation, and the species. As I turn to a reading of *Daughters*, I argue that Caird's vision of individual agency rejects a fully Lamarckian heredity, the inherited onus of custom, but nonetheless relies on a latent, culturally-based character, a bodily memory of the primal "mother-age" so valued in Caird's essays.

"It is often our mightiest projects that most obviously betray the degree of our insecurity," the title character of Sebald's *Austerlitz* tells the narrator. The fortification, he explains, is both "an emblem [...] of absolute power" and a kind of beacon which "drew attention to your weakest point" (15-6). Hadrian's Wall, built by Julius Caesar's army in the first century BC, was perhaps the fortification most familiar to the Victorians, since it was in their own backyard. According to Michael Hechter's now classic account of imperialism on British soil, *Internal Colonialism* (1975), the wall was designed "to provide the lowlanders with security from the constant tribal warfare of the highlanders, that there might be an ordered development of economic, social, and even intellectual life in the lowlands" (53). Though the wall is placed securely within English borders, it serves as a de facto barrier between the pagan barbarianism of Scotland and the securely Romanized, Christianized England. Though it is in fact the name of a Roman ruler, the essence of patriarchal authority in Bagehot's narrative of nation-building, Caird's choice of "Hadria" as the name of her feminist protagonist is an evocative one. As I will argue in this section, Hadria is caught in between two worlds: not just the Borders where the Fullerton family home is located, but between tradition and innovation, heredity and free will; between gender roles, duties and expectations, creativity and normativity. Though she seems to reject heredity as a driving force for human behavior, Caird's construction of Hadria's particular brand of Scottishness reveals the late Victorian conflict between national identity and the

discourse of biological inheritance, and the ways in which tended to pigeonhole women in ways that were nearly impossible to overturn.

Though *Daughters* is not strictly a Gothic novel, it nonetheless relies on the female imprisoned and under threat by the dominant men in her life, though in Hadria's case the threat is not generally physical – rape or murder, actual imprisonment – but psychological and spiritual: it is not her body that is threatened with death but her creativity, freedom of expression, and freedom of choice. She is trapped, as Hadria is fond of pointing out, not by physical barriers or walls, but by the modern prisons of duty and instinct, the assumption that women should be satisfied to marry well and raise children without higher ambitions. In this sense, we can read *Daughters* as a late-century version of Anne Brontë's *The Tenant of Wildfell Hall*, discussed in Chapter Two, a version that comes to much different conclusions. Nor was Caird a stranger to the Gothic; as Agnieszka Żabicka notes, her first novel published under her own name, *The Wing of Azrael* (1889) was a classic study in the Gothic.⁹⁸ Hadria's mother has been a victim of this same gothic regime, and it is to Hadria's eternal regret that women themselves participate in these regimes by forcing them upon their daughters: "In her youth," the narrator notes, "Mrs. Fullerton had shewn signs of qualities which had since been submerged. Her husband had influenced her development profoundly, to the apparent stifling of every native tendency" (33). Hadria, too, finds herself "stifled," so that she is like an ash tree that "had got jammed into a chink so that it couldn't grow straight, or spread, as its inner soul, poor stripling, inspired it to grow. I felt like the poor sapling in the cranny, that had just same natural impetus of healthy growth as all the others, but was forced to become twisted, and crooked, and stunted and wretched. I think most women have to grow in a cranny" (271). As we saw in Brontë's novel,

women are cast as plants to be developed or restrained as the breeder pleases. As we shall see, Caird roots this metaphor strongly in the discourses of national and historical identity.

The female Gothic becomes even more pronounced in a passage early in the novel describing Hadria's first meeting with her somewhat disappointing role model, Valeria du Prel, indicates a connection between the New Woman and the female Gothic. Valeria, who has been attempting to learn about the grand house of the district, sees Hadria rambling across the Scottish hills and, feeling a premonition of dread, overtakes her; upon learning that she lives in Dunaghee, the house itself, Hadria explains its history:

It had obviously been one of the old Scottish strongholds, built in the lawless days when the country was plunged in feuds and chieftains lived on plunder. A few traditions lingered about it: among them that of a chief who had carried off, by force, the daughter of his bitterest enemy, in revenge for some deed of treachery. He had tortured her with insolent courtship, and then starved her to death in a garret in the tower, while her father and his followers assaulted its thick walls in vain. (50)

Caird hints at a more traditional notion of the Gothic in this description of the primal stronghold; as we have seen above, her nonfiction works draw a direct connection between the prehistoric days when men stole women from neighboring tribes and families and the modern days when women are still traded like commodities and all too often treated like a genteel breed of cattle. In a display of her typical cynical humor, Hadria jokes that the house represents "progress" in gender relations, since at least physical crime against women has been replaced by more insidious forms of bondage. Her mother, on the other hand, who was once more spirited but has become a model mother and wife, regards the house as "her very sanctuary," the place where she

is protected from the dangers that may befall a single, unfamilied woman in the wider world (53).

But the house's Gothic nature does not play a prominent role in the rest of the narrative, nor does Hadria express her confinement in terms of architecture as we have seen in *Wuthering Heights*. Instead, the house and its Scottishness signal one of the novel's central claims – that modern woman's gothic containment occurs at the level of and within the discourses not of the house but of the nation. That her extremely Scottish heroine is given a Roman name, one that simultaneously represents enclosure of a barbaric people and protection of an empire from their barbarism, hints at the fuzziness of national identity and its power to determine even the most minute aspects of individual identity. Tracing Hadria's movements throughout the course of the novel, and her identification (or lack thereof) with her surroundings, illustrates this process. Though her brothers have some southern features, we learn that they all share “all the characteristics of a fine northern race” (6). Indeed, Hadria's hereditary connection with her Celtic surroundings is evident not only in her looks but in her spirit and behavior: “Every instinct that was born in her with her Celtic blood – which lurked still in the family to the confounding of its fortunes – was fostered by the mystery and wildness of her surroundings;” the very wildness of the landscape, its extremities of climate, we learn, “had, perhaps, not been without its influence in the forming of Hadria's character. She, more than the others, seemed to have absorbed the spirit of the northern twilights” (17). The solitude and strangeness of the Scottish landscape “appealed to some wild instinct [of hers], and to the intense melancholy that lurks in the Celtic nature” (115). Though in nearly every other aspect of Hadria's life, Caird makes a point of disproving the role of seemingly “natural” instinct, she nonetheless falls under the sway of her environment and the resulting response of her own Celtic roots, again and again. This type

of heredity, latent for the most part but revealing a deep-time connection to her national and tribal past that continues to surface in the present day, represents a kind of Gothic subversiveness in the novel's heroine, manifested both in her resistance to present-day mores and in her larger resistance to modernity and the forward march of progressive history. As the Fullerton siblings make a bonfire on the Scottish heaths, Hadria and her sister Algitha become spirit-like, magical, caught in an oneiric vision of the world around them, as much a part of nature as of the human world; "The question that had been debated so hotly and so often, as to the relation of the good and the beautiful, art and ethics, seemed to be answered by this bewildering revelation of sunlit smoke, playing across the face of a purple-tinted rock, and a few feet of grass-edged pathway" (21). The Scotland with which Hadria identifies so completely is not altogether devoid of human interference, but it does seem to return to what Caird elsewhere calls the "mother-age," particularly in this vision brought on by the sisters "looking like a witch and her familiar spirit" (20). The scene paints a picture of women's intuitive connection between the natural and human worlds, which stems from their primal connection to this mother-age.

The wellspring of Hadria's connection to her Celtic roots, however, is her love of music and dance. At the start of the novel, all of the Fullertons dance beneath the moonlight; the "intoxicating primitive music" makes each of them, though particularly Hadria, become ghostly Gothic figures, dancing "as to the manner born" with an occasional "wild Celtic shout or cry" (5); while Hadria is dancing a reel that is "no 'right canny'" "with peculiar spirit and brilliancy," with a cry that "had a ring and a wildness that never failed to set the others going with new inspiration" (6). "'The girl gets quite out of herself when she is dancing,'" Hadria's mother notes; "'She won't be scolded about it, for she says she takes after her father!'" (134). For Hadria, then, the reel is a moment to escape the strictures and boundaries of social expectation,

to get “out of herself” – out of that self which is shaped by the society she lives in – by retreating into her past and her heritage: “Some mad spirit seemed to possess her. It would appear almost as if she had passed into a different phase of character. She lost caution and care and the sense of external events” (136) – and, as her brother Ernest notes, “It really seems to half mesmerize her” (134). Hadria herself explains her relationship to the dance in hereditary, Butlerian terms: ““It fills me with bewildering memories [...] It seems to recall – it eludes description – some wild, primitive experiences – mountains, mists – I can’t express what northern mysteries. It seems almost as if I had lived before, among some ancient Celtic people, and now, when I hear their music – or sometimes when I hear the sound of wind among the pines – whiffs and gusts of something intensely familiar return to me, and I cannot grasp it” (137).⁹⁹ The language of mists and mountains explicitly connects this scene to the earlier one in which Hadria and Algitha stand in as witches conjuring a scene of the Scottish landscape. During this “mesmeric” state, she loses any sense of individuality, dismissing the importance of her own life as something subsumed by the race, and at this point her trance turns sinister: “She could fancy evil spirits tripping to it in swarms around her. They seemed to point at her, and wave their arms around her, and from them came an influence, magnetic in its quality, that forbade her to resist. All had been pre-arranged. Nothing could avert it” (139).¹⁰⁰ As in Chapter Three, “mesmerism” stands in as a gothic trope for heredity, since both indicate a lack of personal control over one’s actions. The true monstrousness of this type of mesmerism lies in its lack of agency; the only mesmerists acting upon Hadria are her ancestors, who act as “evil spirits.”

True to the gothic themes that underscore the novel, these mesmeric moments during which she is at the mercy of her national instincts are also the moments at which she is at her most vulnerable, her most susceptible to suggestion, and least unable to resist. Henriette

Temperley recognizes this in urging her brother Hubert to take advantage of the situation by proposing once more to Hadria. The Temperleys, a staid English couple, “seemed to be fashioned of different clay” than the Fullertons, evidenced by the fact that “they were able to keep their heads” during the wild reel (136). This primal Celtic memory, then, is both the heart of Hadria’s spirit and talent, and her final downfall. The uncanny influence of this “heritage,” the memories of this mother-age in which humans did not dominate nature, and men did not dominate women, convinces Hadria that her own life, her dynamic intelligence as an individual, cannot possibly matter to the race. The logic that she so ardently resists elsewhere, her insistence that one individual can indeed challenge the strictures of social commands, gets lost by the Gothicized Celtic strain within her – and she makes what she calls the fatal mistake of her life by agreeing, finally, to marry Hubert. After her unhappy marriage, we never see Hadria dance again – but we do witness her continued composition of music, the very element (along with her carefree reel) which attracted Hubert to her in the first place. Like the reel, Hadria’s music reflects the innate Celtic strain in her personality: Professor Fortescue notes that it is “like ‘a sudden storm among mountains,’ ‘the wind-swept heavens at midnight,’ ‘the lonely sea’ [...] but always, behind all fancy and grace and tenderness, and even passion, lurked that spectral loneliness [...] The music was always characteristic, often wild and strange, yet essentially sane” with “a strong Celtic element in it” (266). The French instructor M. Thillard agrees; “There was, he knew not what, in it, of strange and powerful; a music of the North; something of bizarre, something of mysterious, even of terrible, ‘une emotion épouvantable’” (314).

That Hadria should move to England after her marriage is, I argue, no coincidence. Not only is she separated from the environment that has fostered her, she no longer has a connection to the primal memory at the heart of her musical talent, her emotional well-being, and her mythic

feminist status. Craddock Dene, in other words, is Hadria's cranny, stifling her both physically and mentally. Whereas Scotland is wild and untamed, open to those who wish to tramp through its countryside, England has not only been domesticated, sliced up into farms and villages, it has been thoroughly over-domesticated. Hubert, unsurprisingly, is a repository of knowledge about the district's earlier days, when it "had been mere wastes of marsh and forest" (162), but Hadria longs for those days, for a time when "We should all of us have been dancing round some huge log-fire on the borders of a primeval forest, and instead of browsing on salads, as we did to-day, we should be sustaining ourselves on the unholy nourishment of boiled parent or grilled aunt" (163). Cordially inviting her friends to "revert" to this past, Hadria draws the observation from Valeria that there is "a sort of wildness that crops up now and then through a very smooth surface" in her character (163). By quite literally destroying the vestiges of the family unit in her primal fantasy, Hadria returns to her longing for the days in which Dunaghee was a menacing fortress – preferring, in other words, the more overt strictures upon her sex, the more obvious Gothic mechanism against which the heroine can bravely fight, rather than the invisible but no less strong bars of duty that bind her at the fin de siècle. Similarly, the only version of the primitive past that does seem to survive in Craddock Dene is a far cry from Algitha's witch-like bonfire; rather, it is a village wedding which Hadria compares to "some savage rite of sacrifice: priest and people with the victim, chosen for her fairness, decked as is meet for victims" (249). It is only a difference in perspective that allows Hadria to see the bride as she really is, Caird implies, dressed for the power that will consume her just as readily as Hadria's imaginary savages would enjoy their "boiled parent."

Hadria finds the English landscape dull to the point of offensiveness due to its over-production; the boredom around her only serves to reflect the tedium of her daily routine.

Though she longs for “the rougher, bleaker scenery of the North,” she finds only “broken, stupid lines” without even “the grandeur of a plain.”

As it was, to look from her window only meant to find repeated the trivialities of life, more picturesque indeed, but still trivialities. It was the estimable and domestic qualities of Nature that presented themselves: Nature in her most maternal and uninspired mood – Mother earth submissive to the dictatorship of man, permitting herself to be torn, and wounded, and furrowed, and harrowed at his pleasure, yielding her substance and her life to sustain the produce of his choosing, her body and her soul abandoned supine to his caprice. (172-3)

Hadria’s “Mother earth,” a “maternal” Nature, is itself distasteful for allowing itself to be made into a mother. Men’s mode of domestication is relentless, tedious and violent; in fact, it is quite simply (male) rape of the (female) land. Yet Hadria is quite clear that Nature, and by extension all mothers, are complicit in their own subjection. This is perhaps the ultimate insult for her – that women themselves participate willingly in a system that reduces them to their wombs, to their capacity to produce offspring, to their fertility. Women, too, have been domesticated. Even Dunaghee, distasteful as its history might be, rests upon the gently rolling hills without disturbing or disfiguring the wild areas surrounding it. But in this England, domestication and civilization have indeed become monstrous and grotesque. Scotland, traditionally gendered as masculine and rugged in Victorian discourse, becomes powerfully feminized and serves to reinforce the dominating, patriarchal nature of the English and the Empire.¹⁰¹ And worst of all, like so many other New Woman heroines, Hadria feels herself slipping into a mode of English belonging as soon as she travels outside the isle: “Her sentiment had never been narrowly British, but now she realized her nationality over-keenly; she felt herself almost grotesquely

English, and had a sense of insular clumsiness amidst a uprightly, dexterous people” (306). It is key that her British identity slips here into the grotesque English, eliding all memory, conscious and otherwise, of her Scottish and Celtic natures, though fortunately immersing herself in music and escaping the bounds of home quickly returns her to her roots.

It is difficult, in the end, to piece together exactly what the novel advocates *for*. It is undeniably a novel of critique rather than one of advocacy, rebuilding or reconstructing. In the final pages of the chapter, I want to draw a more explicit connection between Caird’s pretopian return to a past that may or may not have existed and the conversation about domestication and models of inheritance begun in the first half of the chapter. To do so, I will briefly contrast the contradictory models of nature, inheritance, and the individual put forth by Valeria du Prel and Professor Fortescue. Ultimately, I will argue, though Hadria may lean toward Fortescue’s biological transcendentalism an attractive possibility, the novel formally and thematically rejects scientific frameworks themselves by allowing multiple worldviews to coexist. The system of scientific knowledge, along with these varying visions of Nature and human nature become, for Hadria, contradictory and therefore unstable. In the end, both the neo-Lamarckian approach taken by Fortescue and the materialist position occupied by Valeria insist on notions of teleological process, notions which the novel simultaneously embraces and rejects.

To begin, then, we must describe the conflicting versions of nature which clash together again and again throughout the novel. The debate is first formulated in the opening scene, where the Fullerton children hold a meeting of the Preposterous Society. Hadria refutes Emerson’s claims that the individual is in complete control of external events, that “The event is the print of your form” (8). Hadria posits a world made up of “organizers, the able, those who build, who create cohesion, symmetry, reason economy” and “the destroyers, those who come wandering

idly by, and unfasten, undo, relax, disintegrate all that has been effected by the force and vigilance of their betters” (9); it is the destroyers, she says, who create the circumstances that shape individual fate. However, Hadria’s speech gives an unexpected turn; ultimately, she says, “We just dance our reel in the garret, and then it is all over; and whether we do the steps as our fancy would have them, or a little otherwise, because of the uneven floor, or tired feet, or for lack of chance to learn the steps – heavens and earth, what does it matter?” (13). In a universe where destruction and creation are continually part of a single process, “inertia” comes to rule the day and progress and regression both become impossible. Like the title characters, women are set the Sisyphean task not just of trying to make individual will victorious over circumstance, but of having an individual will in the first place. Hadria is suggesting here that women’s struggle for control over their lives exists entirely outside of the debates between liberal individualism and biological determinism, that men like her brother, who have never had to endure the controls placed upon women, cannot possibly understand why a woman cannot be an individualist – in other words, that “Emerson never was a girl” (14).

The terms of the debate continue to echo throughout the novel via Valeria and Professor Fortescue. Though Valeria’s art is feminist, she is the first to acknowledge that the world she creates in fiction is unrealistic and incapable of being sustained in real life; therefore, she accepts the doctrines of the eugenicists as unpleasant but unavoidable. After all, she tells Hadria, acting against motherhood is acting against the human race, “the very basis of existence” (68). “Nature,” she continues, “has asked of women a great and hard service, but she has given them the maternal instinct and its joys, in compensation for the burden of this task, which would otherwise be intolerable and impossible. It can only be undertaken at the instigation of some stupendous impetus, that blinds the victim to the nature of her mission. It must be a sort of

obsession; an intense personal instinct, amounting to madness” (69). Hadria accuses her friend of debasing women to the level of domesticated animals who are kept for the purpose of breeding; Valeria responds that “A woman cannot afford to despise the dictates of Nature [...] The centuries are behind one, with all their weight of heredity and habit; the order of society adds its pressure – one’s own emotional needs” (71). She cautions Hadria not “to pit oneself against one’s race” or against the basic laws of life by rejecting marriage and motherhood altogether. In some ways, we might describe Valeria as the novel’s greatest pragmatist. She sees no escape from the cruelly binding ties of society, though she acknowledges that not every woman sees them that way – and she advises women to make up their minds to cooperate with nature and with society in order to avoid the heartache she has experienced in her lonely unmarried life.

On the other side of the spectrum stands Professor Fortescue, who perhaps best embodies Hadria’s ideal “organizer.” Fortescue is ridiculed by others, especially Professor Theobald, for his compassionate nature and his plans to relieve the sufferings of animals. Fortescue insists “that the supreme business of man, was to evolve a scheme of life on a higher plane, wherein the weak shall not be forced to agonize for the strong, so far as mankind can intervene to prevent it” (102). If Nature is cruel and brutish, it is only because man allows it to become that way. Whereas Valeria relies on discourses of science to support her evolutionary, Bagehot-like ideals, the narrator notes that for Fortescue, “Familiarity with weighty scientific authorities had bred contempt” (103). Human instinct is at heart humane and compassionate, he argues, and if something like natural selection does exist, it should be guided to make a life worth living for all types: “Let people talk as they please about the struggle for existence,” he says, “it is through the development of the human mind and the widening of human mercy that better things will come” (272). Fortescue balances the individual and society, the tribe and the race; he consistently

champions the benevolent power of the individual to effect change and to triumph over his or her heredity, should that be one's desire.

Nonetheless, even the overtly feminist Professor's prospects are oversimplified; he can never be crushed between duty and desire the way Hadria has. For Hadria, the ultimate power of heredity is in its connectivity, its power to bring together that which had been separated. Though it proves her fatal weakness at the moment she agrees to marry Hubert, Hadria espouses a kind of transcendental biologism in which men are one with women, humans are one with animals, and all are one with the land:

The wanderer felt herself caught into the heart of some vast unknown power, of which the wind was but a thrall, until she became, for a moment, consciously part of that which was universal. Her personality grew dim; she stood, as it seemed, face to face with Nature, divided from the ultimate truth by only a thin veil, to temper the splendor and the terror. Then the tension of personal feeling was loosened. She saw how entirely vain and futile were the things of life that we grieve and struggle over. (116)

It is only after she has achieved this merging with a kind of oversoul in which time and space seem to exist that her doubts take over – and they come in the form of evolutionary theory:

After all, humanity was a puny production of the Ages. Men and women were like the struggling animalculae that her father had so often shewn the boys, in a drop of magnified ditch-water; yet not quite like those microscopic insects, for the stupendous processes of life had at last created a widening consciousness, a mind which could perceive the bewildering vastness of Nature and its own smallness,

which could, in some measure, get outside its own particular ditch, and the strife and struggle of it, groping upwards for larger realities – (116)

Hereditary identity, like national and gender identities, is a double-edged sword. It is both the means by which the powerful seek to dominate the weak, and the means by which the weak can subvert the social order. The very notion of transcendence is revolutionary – but if the individual falls prey to the notion that her actions have ceased to matter, that they have no effect beyond herself, then she is doomed to kind of misery Hadria experiences. “A spirit of sisterhood among women,” Hadria tells her sister, could correct the imbalance of power, and Algitha agrees: “*But what if they combine ----?*” (473). Thus the joining of identities, the merging of self with other, must be conscious and deliberate, and must not utterly sacrifice one individual for another. At Professor Fortescue’s deathbed, he declares a belief in “an undying element in our personality,” a “survival of the Self” in which “the wild, confused earthly experience is an element of a spiritual evolutionary process” (487).

It is worth noting that Fortescue, like Ernest, is an unattached man, though one with a painful history; Fortescue, we might say, “never was a girl.” The novel’s end seems to indicate that Hadria nonetheless accepts his philosophy, as it is sympathetic to women *and* the animals to which contemporary discourse tied them. Its removal of the cruelty and barbarity of evolutionary discourse to a “spiritual” process seems to answer Valeria’s concerns about the future of the human race. Yet I want to suggest, in concluding this chapter, that the novel’s tidy ending purposely leaves its conflicts unresolved. The novel is in a sense one of Hadria’s “destroyers” – but it is, after all, the destroyers who effect real change, and not the organizers. An organizer Professor Fortescue may have been, but ultimately his death leaves those around him unchanged, though they recognize the value of sympathy. Part of the reason for this, I suggest, is that like

other organizers, Fortescue embraces order and forward progress, which as we have seen in Caird's essays is a notion that can be intentionally or unintentionally disastrous and oppressive to a group of marginalized people. By allowing a proliferation of viewpoints about nature, heredity and the individual, and by removing the ending's focus from its heroine, *Daughters* suggests that the story of the nation is *not* a Bildungsroman: not a story with forward progress, not dominated by the power of the (male) individual, and not featuring a tidy ending. Caird employs this gothic taxonomy of her own in order to reject the powerful tropes of realism and heredity, even while her character relies on a constructed ancestry to make her way through life. It is the paradoxes of the novel that make it simultaneously discordant, with a continuous conversation buzzing around and incapacitating Hadria, and an important critique of the ever more powerful role of scientific discourse in organizing society at personal, familial, and national scales.

END NOTES

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¹ See Harriet Ritvo, *The Platypus and the Mermaid and Other Figments of the Classifying Imagination* (1997), especially chapter one. Carol Kaesuk Yoon's *Naming Nature: The Clash Between Instinct and Science* (2009), though written for a lay audience, is also useful on the history of Linnaeus and the revolutionary aspects of his system.

² Psychological readings of the gothic have dominated the field since the eighties; most instrumental in establishing this pattern are Elizabeth Napier in *The Failure of Gothic: Problems of Disjunction in an Eighteenth-Century Literary Form* (1987); Eugenia Delamotte in *Perils of the Night: A Feminist Study of Nineteenth-Century Gothic* (1990); and Sandra Gilbert and Susan Gubar's *The Madwoman in the Attic* (1979). George Haggerty's *Gothic Fiction/Gothic Form* (1989) insists that "The Gothic novel helped to demonstrate the impossibility of grafting such a theory onto an eighteenth-century empirical world-view without first providing an entirely new basis for interaction between people and their surroundings" (5-7).

³ Sophie Gilmartin, *Ancestry and Narrative in Nineteenth-Century British Literature: Blood Relations from Edgeworth to Hardy* (1998).

⁴ Like most modern historians of science, I avoid the fraught terminology of "pseudoscience" in reference to disciplines that modern-day scientific evidence has not corroborated. This is not to engage in a kind of epistemological relativism that states that all sciences are equally "true," but rather to make the point that what constitutes "scientific" data for one culture does not necessarily hold true for another. Science is full of dead ends that can be ridiculed in hindsight, but to apply the term "pseudoscience" simply privileges our own dead ends and myopia over those of another time and place.

⁵ For useful studies of physiology and phrenology, see Mary Cowling, *The Artist as Anthropologist: The Representation of Type and Character in Victorian Art* (1989); Nancy Armstrong, *Fiction in the Age of Photography: The Legacy of British Realism* (2002); and Lucy Hartley, *Physiognomy and the Meaning of Expression in Nineteenth-Century Culture* (2001).

⁶ See in particular *The Birth of the Clinic*, *Discipline and Punish*, and *The History of Sexuality*.

⁷ Donna Haraway's works on human-animal relationships and the construction of a feminist science are precursors to this project; certainly her methodology of using the cyborg figure to disrupt otherwise "natural" binaries echoes throughout my project. See in particular "The Cyborg Manifesto."

⁸ For classic studies of the gothic, see: David Punter and Glennis Byron, *The Gothic* (2004), particularly "Gothic and Romantic," "Science, Industry and the Gothic," and "Art and Architecture;" David Punter, *Gothic Pathologies: The Text, the Body and the Law* (1998),

particularly the chapter on how *Wuthering Heights* functions as a biological embodiment of the Gothic; and Juliann E. Fleenor's important collection, *The Female Gothic* (1983), which presents the notion of female protection – and entrapment – as the central conflict within the Gothic.

⁹ Any of the novels that rely on mistaken identity, or the plot device of a protagonist who turns out to be of noble birth, use this logic. *Oliver Twist* and *Daniel Deronda* immediately spring to mind.

¹⁰ Aside from the important but dated study on the Victorian family by Walter Houghton in *The Victorian Frame of Mind, 1830-1870* (1957), particularly the chapter entitled "Love" (341-392), some of the sources I have found most useful on the development of the family unit up to and during the nineteenth century include: Nancy Armstrong, *Desire and Domestic Fiction: A Political History of the Novel* (1987), on the sociopolitical causes and consequences of the private sphere of home life; Penny Kane, *Victorian Families in Fact and Fiction* (1995), on the threats to the traditional or biological family unit due to shifting cultural and economic realities; Christopher Flint, *Family Fictions: Narrative and Domestic Relations in Britain, 1688-1798* (1998), an extremely useful look at the eighteenth-century trends that led to the formation of the family unit as the Victorians knew it; Karen Chase and Michael Levenson, *The Spectacle of Intimacy: A Public Life for the Victorian Family* (2000), also on the social instabilities that led to the consolidation and angelization of the family unit; Ruth Perry, *Novel Relations: The Transformation of Kinship in English Literature and Culture, 1748-1818* (2004), which claims that biological relationships declined in importance during the late eighteenth and early nineteenth centuries; and Mary Jean Corbett, *Family Likeness: Sex, Marriage, and Incest from Jane Austen to Virginia Woolf* (2008), which argues that incest and cousin-marriage offered an alternative to the biological and social dangers of allying one's family with an unknown group of people.

¹¹ For useful examples, see Peter Bowler, especially *Evolution: The History of an Idea* (1989, 2003) and *The Mendelian Revolution: The Emergence of Hereditarian Concepts in Modern Science and Society* (1989); Stephen Jay Gould, especially *Time's Arrow, Time's Cycle: Myth and Metaphor in the Discovery of Geological Time* (1987) and Robert J. Richard's *The Meaning of Evolution: The Morphological Construction and Ideological Reconstruction of Darwin's Theory* (1992).

¹² For recent articles that examine the role of periodicals contemporary to the Brontë novels, see: Philip Drew, "Charlotte Brontë as a Critic of *Wuthering Heights*" (1964); Susan Bauman, "'Veritable Utterances': Mid-Victorian Interpretations of Emily Brontë's Poems" (2002); Nicola Diane Thompson, "The Many Faces of *Wuthering Heights*: 1847-1997" (1998) and *Reviewing Sex: Gender and the Reception of Victorian Novels* (1996); Carol Ohmann, "Emily Brontë in the Hands of Male Critics" (1971); Carolyn A. Van Der Meer, "Branwell's Role in the Creation of Heathcliff" (2000); and Nancy Armstrong, "Emily Brontë In and Out of Her Time" (1990).

¹³ The publication of the Notice shifted Brontë fascination in a different direction altogether, spurring an emergent if altogether more familiar form of literary celebrity. Periodical pieces on the Brontës continued to be popular as late as the 1870s, mostly taking the form of biographical sketches and tourist pilgrimages to Haworth.

¹⁴ For several examples of this mode of characterization, see: “Currer Bell,” *Palladium: a monthly journal of literature, politics, science and art* (Sept. 1850), 161; “Female Novelists, No. III – Currer Bell,” *New Monthly Magazine and Humorist* (July 1852), 295; and “Currer Bell,” *Blackwoods Edinburgh Magazine* (July 1857), 77. Causes for an “unnatural” lack of femininity could be attributed to a number of sources, including hereditary explanations: In *Tait’s Edinburgh Magazine* (July 1855), 416, the authors’ mother gets the blame for her unruly daughters, while in the *Critic*, (April 1857), 168, the blame is their father’s.

¹⁵ For examples of this mode, see the reviews contemporary to Gaskell’s biography and Charlotte’s death a decade later. Especially of note are: “Biography: Currer Bell.” *The Critic* (15 April 1857) 168; “Currer Bell.” *Blackwoods Edinburgh Magazine* (July 1857) 77; “English Novelists. II: Charlotte Brontë.” *London Journal* (30 Oct. 1858) 149; Dudley Ellis, “On the Yorkshire Hills about Haworth.” *Temple Bar* (Feb. 1867) 428; W.H. Cooke, “A Winter’s Day at Haworth.” *St. James’s Magazine* (Jan. 1868) 161; “A Winter-Day at Haworth.” *Chambers’s Journal of Popular Literature, Science and Arts* (22 Feb. 1868) 124.

¹⁶ Gilbert and Gubar are the most well-known example of this reading, as it sparked many feminist re-readings of *Wuthering Heights*. See also *Reading the Brontë Body* by Beth Torgerson (2005), and Jamie S. Crouse’s article, “‘This Shattered Prison’: Confinement, Control and Gender in *Wuthering Heights*” (2008).

¹⁷ Eric Hobsbawm describes this process in detail in his work *The Age of Revolution: Europe 1789-1848* (1962).

¹⁸ See Nancy Armstrong, “Imperialist Nostalgia and *Wuthering Heights*” (1994).

¹⁹ For other critics who discuss the importance of arrivals and thresholds in the novel, see Elizabeth R. Napier, “The Problem of Boundaries in *Wuthering Heights*” (1984); Rose Lovell-Smith, “Qu’a donc pu lire Emily Brontë? Arrivals in the Waverley Novels and *Wuthering Heights*” (1994); and Dorothy van Ghent, “The Window Figure and the Two-Children Figure in *Wuthering Heights*” (1952).

²⁰ On Heathcliff as a gothic presence in the novel, see Nancy Armstrong, “Emily Brontë In and Out of Her Time” (1990).

²¹ It is easy to read Nelly Dean as a conservative supporter of the ancient Earnshaw family at the expense of Heathcliff, the Lintons, and even herself. My reading of Nelly aligns more firmly with the novel’s Marxist critics who are interested in exploring her socioeconomic position

within the household and the impact of that position on her rhetorical posturing. Most prominent among these is Terry Eagleton's landmark study, *Myths of Power: A Marxist Study of the Brontës* (1975). Though he says little about Nelly herself, Eagleton's claim that the family is both biological and economic is an important formative influence on my own thinking about the novel (105).

²² For readings of incest in the novel, see William R. Goetz, "Genealogy and Incest in *Wuthering Heights*" (1982); Linda Ray Pratt, "'I Shall Be Your Father': Heathcliff's Narrative of Paternity" (1992); and Mary Jean Corbett, *Family Likeness: Sex, Marriage and Incest from Jane Austen to Virginia Woolf* (2008; 24-29).

²³ For Darwin's obsession over the potentially harmful effects of cousin marriage, see Adam Kuper's 2009 article in *The International Journal of Epidemiology*, "Commentary: A Darwin family concern" (1439-42).

²⁴ On monstrosity and the rejection of a natural order, see: Mary Burgan, "'Some Fit Parentage': Identity and the Cycle of Generations in *Wuthering Heights*" (1982) which argues that Heathcliff represents a non-generative cycle of inheritance and thus cannot be incorporated into the family unit; and Carol A. Senf, "Emily Brontë's Version of Feminist History: *Wuthering Heights*" (1985), which argues that Heathcliff represents both primitive nature and modern capitalism, thus doubly threatening the landed gentry. Barbara Munson Goff, "Between Natural Theology and Natural Selection: Breeding the Human Animal in *Wuthering Heights*" (1984); Joseph Carroll, "The Cuckoo's History: Human Nature in *Wuthering Heights*" (2008); and Philip K. Wilson, "Eighteenth-Century 'Monsters' and Nineteenth-Century 'Freaks': Reading the Maternally Marked Child" (2002) all argue that Heathcliff is literally as well as figuratively monstrous and non-human in the novel. Robert F. Gleckner, in "Time in *Wuthering Heights*" (1959), argues that Heathcliff is entirely stuck outside modern time; and John Allen Stevenson, in "'Heathcliff is Me!': *Wuthering Heights* and the Question of Likeness" (1998), claims that Heathcliff is an entirely indeterminate presence in the novel, nothing more than an empty projection of Catherine's desires.

²⁵ As Darwin's recent boom in popularity continues, additional sources about his life and work become available. Aside from the extensive biographical works of Desmond King-Hele (for years, it seemed, Darwin's lone modern champion), scholars will also find value in Charles Darwin's biography of his grandfather, poet Anna Seward's *Memoirs of the Life of Dr. Darwin* (1804), and Ernst Krause's *Erasmus Darwin* (1880).

²⁶ Jenny Uglow's *The Lunar Men: Five Friends Whose Curiosity Changed the World* (2002) and Richard Holmes' recent and lovely *The Age of Wonder* (2008) offer excellent overviews not only of Darwin and his intellectual circle but of the place of science and innovation in Romantic culture at large.

²⁷ See “Books Owned by the Brontës,” “Books Read by the Brontës,” and “Natural History and the Brontës” in *The Oxford Companion to the Brontës* (2003). See also Clifford Whone’s classic “Where the Brontës Borrowed Books” (1950) and Bob Duckett’s informative response, “Where Did the Brontës Get Their Books?” (2007) in which he traces the public, private, circulating and subscription libraries likely available to the Brontës – not including the Keighley Mechanics’ Institute usually accepted by Brontë critics as main library source. Beth Torgerson’s introduction and first chapter of *Reading the Brontë Body* (2005) is also useful on the Brontës’ access to medical texts and experiences with alcoholism.

²⁸ Alexander and Sellers’ *The Art of the Brontës* (1995) provides invaluable facsimiles of drawings, paintings and marginalia by Emily, Charlotte, Anne and Branwell Brontë.

²⁹ For readings of the twentieth-century reliance on genetics as sole or major determinant of biological and emotional personhood, and suggestions for twenty-first-century revisions of the relationship between nature and nurture, see Evelyn Fox Keller, especially *The Century of the Gene* (2000) and *The Mirage of a Space between Nature and Nurture* (2010), and Richard Lewontin, *The Triple Helix: Gene, Organism, and Environment* (2000).

³⁰ See Harriet Ritvo, *The Platypus and the Mermaid and Other Figures of the Classifying Imagination* (1997) and Nicholas Russell, *Like Engend’ring Like: Heredity and Animal Breeding in Early Modern England* (1986).

³¹ In *The Mirage of a Space between Nature and Nurture*, Keller claims that early uses of the term “heredity” refer to the inheritance of property rather than of biological traits, and that early versions of the nature/nurture debate tend to think along the axis of before and after birth, rather than the axis of internal and external substances (21-2).

³² Amy King’s excellent *Bloom: The Botanical Vernacular in the English Novel* (2003) traces the ways in which British fiction and scientific discourse both translated women’s sexuality into the language of flowers and fertility, allowing for a socially permissible venue in which to discuss taboo or improper subjects.

³³ Though I have not found direct evidence that the Brontës owned a copy of Darwin’s works, they did possess and have access to a wide range of writings on natural history, including the works of Bewick, Audubon, White of Selborne, Buffon, Cuvier, Lyell, Mantell, Paley, many of the Bridgewater treatises, and Davy (*The Oxford Companion to the Brontës* 52-3, 338-9) and Hutton, Bacon, Whewell, Locke, Humboldt, Captain Cook, and a wide variety of periodicals and natural histories (Whone). With such a wide variety of texts, and with evidence that the sisters were active readers of scientific texts, it is certainly within the realm of possibility that they would have been familiar with Darwin’s works either firsthand or else secondhand through references and reviews.

³⁴ Schiebinger, *Nature's Body: Gender in the Making of Modern Science* (1993). Chapter one, which explores many of the themes of this project, including gender in Linnaean classification, Darwin's poetry, and the role of metaphor in scientific discourse, is particularly relevant.

³⁵ See the first chapter and introduction of *Bloom: The Botanical Vernacular in the English Novel*.

³⁶ Darwin's tract on education is worthy of exploration in its own right. He argues that education should involve both the mind and the body, but that the male system of education should be adapted for the milder female temperament, and that young women should be protected against harmful influences. Nonetheless, Darwin's sense of what might be injurious is far more liberal than many of his contemporaries': in his system, women should learn reading and writing, drawing and embroidery, as one might expect, but also arithmetic, foreign languages, world geography, mythology, his own translations of Linnaeus, chemistry, mineralogy, basic astronomy and magnetism, shorthand, shuttlecock, weightlifting, bell-pulling, marching, and account keeping. In the section on poetry, he notes that "I forbear to mention the Botanic garden; as some ladies have intimated to me, that the Loves of the plants are described in too glowing colours; but as the descriptions are in general of female forms in graceful attitudes, the objection is less forceable in respect to female readers" (38).

³⁷ Bowler claims that Buffon "did not really believe in epigenesis" because the complete embryo comes together so early on in the process: "One suspects that Buffon sensed his inability to provide a truly materialistic explanation of so intelligent and pervasive an entity," he writes in *The Mendelian Revolution* (35). Though his conception of the formation of the embryo may not be so separate from a sense of design as that of later embryologists, his reaction against preformationism remains important. I would suggest that the discomfort I highlight in this passage, similar to the frustration Bowler describes, nonetheless points to an as-yet unformulated formula, the existence of a system Buffon knows to be true but still lacks the language to describe.

³⁸ See Philip K. Wilson, "Eighteenth-Century 'Monsters' and Nineteenth-Century 'Freaks': Reading the Maternally Marked Child" (2002) for a useful reading of the theory of maternal impressions.

³⁹ As readers of *Tristram Shandy* would have recognized, the mind's power of association could very well change the course of birth and procreation. The novel's focus on the striking of the clock, which triggers an association with sex in Tristram's parents, arguably positions the striking of the clock, not the act of fertilization, as the moment of conception. In his search for meaningful origins, Tristram asserts that the homunculus (a preformationist notion implying that miniature persons already existed within the unfertilized ova) is a being "with the same locomotive powers and faculties with us" (2). I would argue that Tristram's (and his father's) anxiety over the identity of the biological father goes hand in hand with the notion of the homunculus; his "little gentleman" encodes the wider cultural fears of the impossibility of proving paternity.

⁴⁰ “Dr. Darwin’s Temple of Nature: a Poem,” *Edinburgh Review* 2:4 (July 1803).

⁴¹ “From having observed the gradual evolution of the young animal or plant from its egg or seed; and afterwards its successive advances to its more perfect state, or maturity; philosophers of all ages seem to have imagined, that the great world itself had likewise its infancy and its gradual progress to maturity; this seems to have given origin to the very antient and sublime allegory of Eros, or Divine Live, producing the world from the egg of Night, as it floated in Chaos” (footnote from *Economy of Vegetation* 8).

⁴² See *Zoonomia*, Section XIII. In the work’s Preface, Darwin states, “The great CREATOR of all things has infinitely diversified the works of his hands, but has at the same time stamped a certain similitude on the features of nature, that demonstrates to us, that *the whole family is of one parent*” (vii). Alan Bewell reads these connections as part of the larger eighteenth-century British attempt to colonize both nature and foreign lands, to reduce the cultural other to the level of a species to be collected and placed in the royal gardens of the empire.

⁴³ “Such is the condition of organic nature! whose first law might be expressed in the words, “Eat or be Eaten!” and which would seem to be one great slaughter-house, one universal scene of rapacity and injustice!” (*Phytologia* 509).

⁴⁴ For reference purposes, I follow the 1978 facsimile reprint of *The Temple of Nature* by Garland Publishing. Where appropriate, line numbers for poetry are included; for footnotes, I follow the editors’ pagination.

⁴⁵ See Waller, ““The Illusion of an Explanation’: The Concept of Hereditary Disease, 1770-1870,” *Journal of the History of Medicine and Allied Sciences* (2002).

⁴⁶ Act Two (85), Alan Bennett, *The History Boys* (2004).

⁴⁷ On narrative techniques and feminism in the novel, see N. M. Jacobs, “Gender and Layered Narrative in *Wuthering Heights* and *The Tenant of Wildfell Hall*” (1986), Lidan Lin, “Voices of Subversion and Narrative Closure in Anne Brontë’s *The Tenant of Wildfell Hall*” (2002), Tess O’Toole, “Siblings and Suitors in the Narrative Architecture of *The Tenant of Wildfell Hall*” (1999), Carol A. Senf, “*The Tenant of Wildfell Hall*: Narrative Silences and Questions of Gender” (1990), Maggie Berg, ““Let Me Have Its Bowels Then’: Violence, Sacrificial Structure, and Anne Brontë’s *The Tenant of Wildfell Hall*” (2010), Garrett Stewart, *Novel Violence: A Narratography of Victorian Fiction*, especially chapter three (2009), Elizabeth Langland, *Anne Brontë: The Other One* (1989), and Rachel K. Carnell, “Feminism and the Public Sphere in Anne Brontë’s *The Tenant of Wildfell Hall*” (1998). On motherhood and the legality of divorce and

the Infant Custody Act, see Joan Bellamy, “*The Tenant of Wildfell Hall*: What Anne Brontë Knew and What Modern Readers Don’t” (2005), Ruth Bienstock Anolik, “The Missing Mother: The Meanings of Maternal Absence in the Gothic Mode” (2003), and Nicole A. Diederich, “The Art of Comparison: Remarriage in Anne Brontë’s *The Tenant of Wildfell Hall*” (2003). Drew Lamonica’s work on education in *Wildfell Hall* is useful (“*We Are Three Sisters*”: *Self and Family in the Writing of the Brontës*, 2003), as is Tamara Wagner’s 2007 article on the separation between inheritance and paternity in the novel, though I think the novel’s anxiety about hereditary transmission serves more to underscore its inseparability from inheritance rather than to remove the novel entirely to the realm of financial speculation, as Wagner argues (“Speculations on Inheritance and Anne Brontë’s Legacy for the Victorian Custody Novel”).

⁴⁸ On the cultural role of the garden in the Victorian era, see Brent Elliott, *Victorian Gardens* (1986), Michael Waters; *The Garden in Victorian Literature* (1988); and Joan Morgan and Alison Richards, *A Paradise out of a Common Field: The Pleasures and Plenty of the Victorian Garden* (1990).

⁴⁹ See, for example, Matthew Lewis’ *Journal of a West India Proprietor*, in which Lewis describes the twin frustrations of overly fertile non-native species running amok over his inherited property, and slaves who refuse to reproduce fast enough for his economic desires.

⁵⁰ It would seem that Erasmus Darwin fully agreed with Helen’s strategies: in *A Plan for the Conduct of Female Education in Boarding Schools*, he warns about the dangers of allowing early access to alcohol: “[W]here a glass of wine is given as a reward for industry, a child is taught to believe wine to be a most valuable acquisition, and a perpetual desire of it even to intoxication may be the consequence. I remember a wealthy farmer, who had two drunken sons, tho’ he was a sober man himself, who told me, that he ascribed this great misfortune to his having occasionally given them in their early life a cup of ale as a reward for their exertions” (92).

⁵¹ The poem is obsessive in its references to the language of chains: binding, linking, riveting, bands, spokes, clinging, reins, fibers, weaving, looms, tubes, ducts, glands, veins, and “the living web,” among others. Though my focus here is on gender and maternity, Darwin is also illustrating the great scientific and philosophical doctrine of the eighteenth century, the Great Chain of Being, which he sees as entirely compatible with a Nature that is cruel, and a world that is constantly changing.

⁵² Taylor’s 1992 work *In the Secret Theatre of Home: Wilkie Collins, Sensation Narrative, and Nineteenth-Century Psychology*, with its Foucauldian approach to the connections between textuality and the epistemologies of the subject in the nineteenth century, has been another valuable resource in setting the groundwork for this chapter. Taylor argues that the self is incoherent, a “collection of physical signs whose meaning is uncertain; a subjectivity struggling to gain coherence, yet bearing secret and forgotten traces,” but is also formed through “the

different kinds of legacies it inherits from the past—social, psychic, genealogical” (64). Her claim that “Collins is drawing on a familiar stock of fictional conventions in order to exploit the connections that they suggest between the inheritance of property and the formation of identity, and to question the connections between lines of transmission between generations and the reproduction of morbid systems” (64) has informed my own reading not of the relationship between the psychological mind and the social self, as Taylor argues, but of the relationship between how the biological body is portrayed in scientific and sensational discourses.

⁵³ See Huxley, “*The Origin of Species*,” published 1860 and republished in his collection *Darwiniana* in 1894.

⁵⁴ The work’s full title is *Intermarriage; or The mode in which, and the causes why, beauty, health and intellect, result from certain unions, and deformity, disease and insanity, from others; Demonstrated by delineations of the structure and forms, and descriptions of the functions and capacities, which each parent, in every pair, bestows on children, - in conformity with certain natural laws, and by an account of corresponding effects in the breeding of animals*.

⁵⁵ Gillian Beer, who situates Darwin firmly in the camp of scientists whose work may be read by, and was written for, non-specialists as much as fellow naturalists, argued in her seminal work *Darwin’s Plots* that evolutionary theory recasts mythical themes of creation and origin by employing evolution as both a metaphor and as a realistic description. In doing so, she suggests that it is Lamarckian intentionality that continues to creep into and personify Nature or natural selection in contemporary conversations about evolution. For Beer, “profusion is, as in Dickens, the argument;” the abundance of evidence and comparison in Darwin’s work itself exemplifies his argument about abundance and (un)intentionality in the natural world (42). My own argument uses as a starting point her claim that the value of analogy lies in its precariousness, its instability (74).

⁵⁶ See Nicholas Daly, “Railway Novels: Sensation Fiction and the Modernization of the Senses.”

⁵⁷ Beer’s foundational text cites Darwin’s *Autobiography*, *The Voyage of the Beagle*, *The Descent of Man*, *The Expression of the Emotions in Man and Animals*, of course *The Origin*, his correspondence and notebooks – but not *Variation*. Likewise, George Levine’s equally influential *Darwin and the Novelists* features only a short paragraph on *Variation* (29-30). Most subsequent literary scholarship has followed their precedent. It is a work that is, as one historian of science informed me, simply a *boring* text.

⁵⁸ Upon learning that the manuscript for *Variation* would amount to two volumes over 600 pages each, Darwin proposed to Murray that “A plan, which is often followed on the continent, has occurred to me, & which has some decided advantages besides reduction of bulk, namely to give details in smaller type; so that the general reader may at once pass over such details” (DCP 5350, Darwin to Murray, 8 January 1867).

⁵⁹ The Darwin Correspondence Project (DCP) is a searchable database (unfinished as of this printing) of every extant letter to and from Charles Darwin, summarized and tagged via a University of Cambridge project. Citations in this chapter refer to the numbering system used by the DCP itself; date and other relevant information will be provided in notes. Letter 5649: Darwin to Asa Gray, 16 October 1867.

⁶⁰ Darwin to J.D. Hooker, 17 November 1867.

⁶¹ Henry Holland to Darwin, 11 February 1868.

⁶² Darwin to Asa Gray, 8 May 1868.

⁶³ Darwin to J.D. Hooker, 23 February 1868.

⁶⁴ The literary reviewer for the *Athenaeum*, for instance, calls the work and its use of domesticated pigeons to prove the principles of evolution a “better illustration of anticlimax than the mountain which brought forth a mouse,” claims that “breeding and weeding” only keep varieties from reversion and sterility, and concludes thus: “On the origin of species Mr. Darwin has nothing, and is never likely to have anything, to say; but on the vastly-important subject of inheritance, the transmission of peculiarities once acquired through successive generations, this work is a valuable storehouse of facts for curious students and practical breeders” (*The Athenaeum*, 15 February 1868, 243-4).

⁶⁵ Mary M. Bartley, “Darwin and Domestication: Studies on Inheritance” (1992). Bartley’s work usefully asserts the importance of pangenesis as a theory that, to Darwin, stood on its own even while it was necessary in order to make sense of natural selection. See also Rasmus G. Winther, “Darwin on Variation and Heredity” (2000), who remarks that for Darwin, heredity and variation are always intertwined, meaning that Lamarckian heredity is nonetheless always a possibility within the theory of pangenesis. Certainly Darwin was, like his contemporaries, to some extent a Lamarckian, but I nonetheless maintain that the revolutionary nature of pangenesis rested on its materialism, which separated it from any theories that came before it.

⁶⁶ One thinks here of Wittgenstein’s concept of “family resemblances,” in which correspondence between meanings is never exact but ultimately rests on *play* and interplay between concepts that nonetheless have some kind of direct relationship. A similar argument is framed by philosophers of science who engage with the debate over scientific realism and anti-realism, a debate which argues about the extent to which scientific descriptions are understood as metaphor or a “realistic” mimetic reflection of an observable reality. Kyle Stanford’s *Exceeding Our Grasp: Science, History, and the Problem of Unconceived Alternatives* (2006) uses the varying models for genetic inheritance in the nineteenth century, including Darwinian pangenesis, to argue for an anti-realist model of scientific description.

⁶⁷ Franco Moretti argues in *Graphs, Maps, Trees* (2005) that Darwin's tree is a "morphological diagram" in which "history is systematically correlated with form;" in other words, the most important aspects of the tree for Darwin's purposes are its ability to correlate form with time and its unlimited expansiveness (69). See also Jonathan Smith, *Charles Darwin and Victorian Visual Culture* (2006), particularly his reading of the significance of Darwin's evolutionary tree within the larger context of Victorian illustration practices (3-20).

⁶⁸ It is likely that Darwin is thinking here of Goethe's novel *Elective Affinities*, which posits a love triangle (or, more accurately, quadrangle) as a model for chemical reactions; human emotions and interactions – influences – are, in other words, *similar to* chemical and material combinations of elements. It is not implausible that both Darwin and Goethe could be anticipating something akin to mesmerism in which invisible material influences flow between humans, a theory not altogether different from the modern science of pheromones.

⁶⁹ An early letter indicates that the correlation between these analogies had been on Darwin's mind for some time. In 1860, he wrote to W. H. Harvey that "The term 'Selection' I see deceives many persons; though I see no more reason why it should than *elective* affinity, as used by the old chemists" and that Harvey's reference to the exact age of the world "makes, however, no more impression on me, as an objection; than does the astronomer, when he puts on a few hundred-million miles to the distance of the fixed stars" (DCP 2922, Darwin to W. H. Harvey, 20-4 September 1860).

⁷⁰ The theory of mesmerism proposed that fluids circulate throughout living organisms and the universe, controlling health and vitality. As Martin Willis and Catherine Wynne note in the introduction to their collection of essays on mesmerism and Victorian literature, "To investigate literary mesmerism is to unveil the reactions and responses, the interventions and influences of one of the key forms of knowledge that the Victorians used to define their sense of self and society" (7, *Victorian Literary Mesmerism*). Ilana Kurshan's essay in the same collection explains that mesmerism and phrenology were considered related sciences, and both relied on a deep connection to literature.

⁷¹ Because of availability and access issues, I have used the American publication as reference in this section. Though Darwin refers to the chapter on inheritance in his letters as the last chapter of the first volume, the American publication instead begins the second volume with that chapter.

⁷² Francis Galton presented a paper to The Royal Society several years later that attempted to put Darwin's theories of pangenesis to the test by transfusing the blood of "mongrel" or "alien" rabbits into the veins of "pure" ones and then attempting to breed the animals post-transfusion. If pangenesis was true, Galton argued, then "the gemmules in each individual must therefore be looked upon as entozoan of his blood" and the body as "little more than a case which encloses them" (394); the animals who received injections of blood would also receive foreign gemmules, which would reproduce themselves and circulate throughout the new body. Since the resulting animals either were sterile or else produced offspring true to type, Galton concluded that

gemmules or reproductive materials do not simply reside within the blood, though they may still exist and indeed may exist temporarily in the blood itself (404). Nonetheless, though Galton's experiments indicate that Darwin's theory of the circulation of gemmules cannot be literal, he still allows for a more metaphorical circulation of hereditary particles between individuals by other mechanisms. ("Experiments in Pangenesis, by Breeding from Rabbits of a Pure Variety, into Whose Circulation Blood Taken from other Varieties Had Previously Been Largely Transfused," *Proceedings of the Royal Society of London*) For useful commentary, see Michael Bulmer, "The Development of Francis Galton's Ideas on the Mechanism of Heredity" (1999).

⁷³ Hooker to Darwin, 26[-7] February 1868.

⁷⁴ Hooker to Darwin, 28 February 1868.

⁷⁵ Hooker to Darwin, 3 March 1868.

⁷⁶ Darwin to Huxley, 27 May 1865.

⁷⁷ Darwin to Emma Darwin, 20-1 May 1848.

⁷⁸ See Armstrong, *Desire and Domestic Fiction: A Political History of the Novel* (1987); her argument about individual subjectivity is laid out in the introduction (3-28).

⁷⁹ Jonathan Loesberg, "The Ideology of Narrative Form in Sensation Fiction." *Representations* (1986).

⁸⁰ Patrick Brantlinger, "What is 'Sensational' About the 'Sensation Novel'?" *Nineteenth-Century Fiction* (1982).

⁸¹ Nemesvari, "'Judged by a Purely Literary Standard: 'Sensation Fiction, Horizons of Expectation, and the Generic Construction of Victorian Realism'" in *Victorian Sensations: Essays on a Scandalous Genre* (2006).

⁸² Laurence Tailarach-Vielmas has recently argued in *Wilkie Collins, Medicine and the Gothic* (2009) that anxieties about materialism stemming from the collapse of boundaries between species resulted in Collins' strategy of presenting Gothic themes, including determinism, via medical discourse, claiming that "science enables Collins to conflate the natural and supernatural" (59). His suggestion that the criminal plot in *Armadale* is a result of the literalization of metaphors in that text is valid, but I am suggesting a model of *invisible* materialism that his conceptual structure does not accommodate. For Talairach-Vielmas, the novel hinges on the *dematerialization* of bodies, the moments in which physical bodies dissolve and become spectral. My analysis, on the other hand, focuses on the ways in which the text

attempts to use a materialism that is invisible to the naked eye but still very much a physiological process, observable if only we had the correct tools (or if only they existed), in order to undermine determinism.

⁸³ See reviews in *The Athenaeum* (22 Dec. 1888, p. 846); *The Spectator* (26 Jan. 1889, p. 120); *The Academy* (12 Jan. 1889, p. 21); *Murray's Magazine* (Feb. 1889, p. 288); and *The Dublin Review* (Jul. 1889, p. 196).

⁸⁴ Clayton, "Inherited Behaviour in Wilkie Collins's *The Legacy of Cain*: Victorian Studies and Twenty-First-Century Science Policy" (2008). Clayton argues that the novel represents a move toward what late Victorians would call neo-Lamarckism but modern scientists would call epigenetics, and that Galton's solid rejection of Darwinian pangenesis helped to make space for an epigeneticist reading of nature and nurture.

⁸⁵ Relatively few have written on *Legacy of Cain*, but among those who accept that Eunice is the daughter of the murderess are Jay Clayton, Jenny Bourne Taylor, and Laurence Talairach-Vielmas.

⁸⁶ See Galton's rather gruesome work on transfusions of blood in rabbits, which he claimed entirely disproved the theory of pangenesis (1871); Huxley's essays in *Darwiniana* (1897); and Spencer's work on social evolution.

⁸⁷ For Nägeli's theory of the idioplasm, see *A Mechanico-Physiological Theory of Organic Evolution* (1898). For Galton's theory of the stirp, see "A Theory of Heredity" (1875). For Weismann's theory of the germ-plasm, see *Essays Upon Heredity and Kindred Biological Problems* (1891). Each of these texts modifies Darwin's theory of the gemmule in some way, but maintains the notion of a particle within the body, passed on to offspring in various ways, that carries hereditary information.

⁸⁸ See Richardson, *Love and Eugenics in the Late Nineteenth Century: Rational Reproduction and the New Woman* (2003).

⁸⁹ I prefer the term "materialist" to "neo-Darwinist" because even those who essentially agreed with some or all of his theory of pangenesis had harsh criticism for it.

⁹⁰ See Lyell, *Principles of Geology* (1830), and Gould, *Time's Arrow, Time's Cycle: Myth and Metaphor in the Discovery of Geological Time* (1987).

⁹¹ Useful resources include Jared Diamond, *Guns, Germs and Steel: The Fates of Human Societies* (1997) and Alfred W. Crosby, *Ecological Imperialism: The Biological Expansion of Europe, 900-1900* (1986).

⁹² Of course, by now we recognize that the most invasive of species (aside from humans themselves), and the most damaging, were not plants or animals but a class of organisms which might matter greatly to farmers and slaveholders, but not necessarily to biologists during the eighteenth and nineteenth centuries: diseases.

⁹³ Butler's work *Life and Habit* (1877) is particularly useful here.

⁹⁴ Schaffer's essay appears in *The New Woman in Fiction and in Fact: Fin-De-Siècle Feminisms*, edited by Chris Willis and Angelique Richardson (2000).

⁹⁵ Heilmann, *New Woman Fiction: Women Writing First-Wave Feminism* (2000).

⁹⁶ Ardis, *New Women, New Novels: Feminism and Early Modernism* (1990).

⁹⁷ Heilmann, *New Woman Strategies: Sarah Grand, Olive Schreiner, Mona Caird* (2004). Whereas Heilmann reads the notion of myth quite literally by unpacking the various Greek and Roman myths with which Caird's writing abounds, my reading takes myth in a much looser sense, as in a rich narrative cultural past outside the traditional Greco-Roman tales.

⁹⁸ Zâbica, "Female Gothic Motifs in Mona Caird's *The Wing of Azrael*" (2005).

⁹⁹ See Cheryl A. Wilson's very recent "Mona Caird's Dancing Daughters" (2012).

¹⁰⁰ That Hadria repeatedly insists that her Celtic abandon comes from her father is significant, particularly given Hadria's musings that her father, who has a keen interest in natural history and tends to dismiss the world of imagination and poetry, but nevertheless dotes upon his garden, perhaps "also had been born with certain [feminine] instincts, which the accidents of life had stifled or failed to develop" (36).

¹⁰¹ See Maureen M. Martin's *The Mighty Scot: Nation, Gender, and the Nineteenth-Century Mystique of Scottish Masculinity* (2009).

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