This book is about a remarkable episode in the history of literature and of medicine, in which several influential literary and medical writers were allied in one project, that of negotiating between two distinctly different ways of knowing – between, that is, personal experience and scientific knowledge of the natural world. Although we have come to regard “clinical” and “Romantic” as oppositional terms, clinical medicine emerged from the same culture that nourished Romantic literature. In the first half of the nineteenth century, a number of leading doctors and writers cultivated a form of double vision which I will call “Romantic materialism”: Romantic because they were concerned with consciousness and self-expression, and materialist because they placed a particularly high value on what natural philosophy was telling them about the material world.

My argument, in short, is that Romantic materialists, as inheritors of the conceptual structure of natural theology, read the world through “two books”: the Book of Nature and the Book of Scripture. But, unlike traditional natural theologians, Romantic materialists accepted disjunctions between the two ways of knowing and called for an interpretive method which tacked back and forth between physical evidence and inner, imaginative understanding. This dialectical hermeneutic yielded innovations in both medical diagnostics and literary representation. Clinical practitioners developed the two-part history and physical exam, tolerating the tensions between the patient’s narrative and the evidence of the body. Literary writers produced potent myths like Frankenstein, Sartor Resartus, and Wuthering Heights, featuring startling and incongruous juxtapositions of the natural and the spiritual, and often disturbing the conventional dualist hierarchy of spirit over flesh. Examining works of imaginative literature by Mary Shelley, Thomas Carlyle, and Emily and Charlotte Brontë, alongside medical lectures, textbooks, and journal articles, I propose that these writers constitute, if not formally or self-consciously a movement, at least a striking cultural
 formation – certainly more substantial than a fleeting transitional phase between literary or historical periods.

Romantic materialism is a phrase that Gillian Beer applied to Charles Darwin when she explored his linguistic development in *Darwin’s Plots*. Beer traces Darwin’s dual interest in imagination and the material world and argues that the resultant “romantic materialism” drives him “to substantiate metaphor, to convert analogy into real affinity.” George Levine in *Darwin and the Novelists* echoes Beer’s phrase, explaining the seemingly paradoxical conjunction as a confluence of traditions. “Darwin,” writes Levine, “though an inheritor of eighteenth-century materialist thought, had nevertheless absorbed the organicist assumptions of the romantic poets.” I think both Beer and Levine are right about Darwin’s dialectical heritage, and will argue moreover in chapter six that this dialectic was crucial to the generation of his theory of natural selection. But both Darwin and later Darwinists, though intellectually indebted to a two-text epistemology, offered the possibility of strictly materialist readings of nature, shedding the “Romantic” side of the dialectic and effectively putting an end to the primacy of natural theology. I am proposing, then, that the term “Romantic materialism” is particularly apt for pre-Darwinian science and literature, for Darwin’s heritage rather than his legacy.

The very category of “pre-Darwinian” literature, by which I mean literature from 1800 to 1859, before the publication of *The Origin of Species*, wreaks havoc with traditional literary periodization. Why import a landmark in the history of science into a consideration of literature? Not, certainly, to grant science primacy over literature, but rather to cross-fertilize the disciplines for a new perspective. The imaginative literature of this period that most completely addresses the medical body is interestingly the very literature which has most successfully evaded categorization as Romantic. The first three pre-Darwinian literary texts I discuss, *Frankenstein*, *Sartor Resartus*, and *Wuthering Heights*, have never sat very comfortably in their designated literary periods. *Frankenstein* (1818), although safely within a Romantic chronology, is often regarded as atypically Romantic, or even anti-Romantic, with Gothic trappings surrounding elements of incipient science fiction. George Levine, for instance, advances *Frankenstein* as a proto-realist novel because of its explorations of an empiricist epistemology. *Sartor Resartus* (1834), although typically considered Victorian since it so strongly influenced the age, is a thinly veiled redaction of German Romanticism for the British public. And *Wuthering Heights* – is it Gothic romance, early social realism, or, as Nancy Armstrong concludes, an incoherent mixture of the two? There is a family resemblance
in these texts that situate them somewhere between the Romantic and the Victorian. Their supernatural obsessions signal some debt to the romance or the Gothic, and their insistent return to the physical world signals perhaps a nascent realism, or interest in the natural and medical sciences. When these texts are compared to pre-Darwinian medical literature, this resemblance comes into focus as a cross-disciplinary (or to some extent pre-disciplinary) cultural formation of Romantic materialism.

I also use "Romantic materialism" to characterize one strain of the several "Romanticisms" posited by recent critics. Identifying this particular strain is significant, in that it constitutes a formative period in science and contributes major texts to Romantic narrative. The first three narratives I consider share many formal properties. All have been considered "mythic" for their time; I refer here not to the use of classical themes, but to the property of serving an explanatory function, of being a story that bridges, in fictional terms, the supernatural and the natural worlds. All had a powerful resonance for their century, with themes and fragments being repeated almost obsessively in other literary works and in more popular forms. All were initially branded as crude, primitive, messy, or wild, with overt attention not just to nature, but also to embodied experience. All tend toward fragmentation, or are not overly concerned with realistic connections and plausibility. All are first-person narratives. Formally, they employ a frame or set of frames, and use multiple first-person narratives couched within one another. These common formal properties suggest at least a subgeneric grouping, neither neo-Gothic nor proto-realist, not simply transitional, but a coherent mythic patterning with resonance for a whole culture.

One problem with the use of the term "Romantic materialism" is that it risks sounding like a synonym for "natural supernaturalism" – and in one sense it is, although a synonym for Thomas Carlyle's coinage in Sartor Resartus rather than for M. H. Abrams's interpretation in his book by that title. The difference is that Abrams has taken "natural supernaturalism" to indicate a secularization, the supernatural recast in natural media, whereas Carlyle emphasizes a duality, an ongoing conversation between the sacred and the secular that is sustained in Britain until Darwin's revolution. The reception of Darwin's theory marks a widespread secularization, but the pre-Darwinian environment was decidedly dualistic. Although ideas of evolution were "in the air" before Darwin, ideas of materialism, or a one-text world, were dangerously foreign and much feared.

The logic of Romantic materialism runs counter to many prior explanations of Romanticism. A long tradition holds that British Romanticism was fostered by disillusioned radicals, who, appalled at the physical ravages
of the French Revolution, forsook the political arena to take their revolution inward, into the recesses of the mind and imagination. By this account, the radical energy of Romanticism was disabled from its inception by its removal from the material world. Whereas Romanticism has been associated with internalization, whether of a failed political project or of a Bloomian romance quest, Romantic materialism emphasizes exteriorization, incarnation, or, as Carlyle puts it, “bodying forth.”

Preserving the paradox implicit in “natural supernaturalism,” Romantic materialism reinvigorates religious mystery by refiguring it anew in explicitly material terms. Although this dialectic bears a strong resemblance to previous definitions of Romantic irony, in that its two sides resist resolution or unification, Romantic materialism differs in preserving its interest in patterns rather than chaos, in creativity rather than deconstruction, in net developmental change rather than endless flux. It tolerates disjunctions due to the desire to explain provisionally in the face of incomplete knowledge, not in celebration of irresolution.

This brand, or relative, of Romantic irony resembles Clyde Ryals’s “enabling fiction in a world of possibilities” more than Anne Mellor’s endless becoming in an infinitely abundant chaos. It differs from Ryals’s conception, however, in its ethical concern. Anne Mellor identifies “the ethical problem implicit in the stance of the romantic ironist” according to her or Ryals’s usage – that is, “the impossibility of making an enduring commitment to a particular political or moral program that might over time produce greater social or legal justice.” Both Mellor and Ryals derive their definitions of Romantic irony from Schlegel’s early work, and fail to recognize the “ethical irony” that Gary Handwerk, by contrast, has argued is present in Schlegel’s later development. Furthermore, Mellor and Ryals identify German theory too closely with British literature, missing the Romantic materialism that brings British and German influences into conversation with one another. In the texts I consider, the influence of German Romantic irony is tempered by native empiricism, resulting in a hermeneutic ethics concerned with both transcendence and embodiment. Because Romantic materialism does not neglect the body, and because it argues for the possibility of a provisional or working knowledge of the world, it can espouse an ethics and address questions of material justice.

**ROMANTIC MEDICINE**

In 1993, G. S. Rousseau complained that “there has been no sustained effort or synthetic attempt to link ‘Romanticism’ (disparate as any historical
movement called ‘romanticism’ may have been) to the development of ‘real
science.’” Rousseau acknowledged the value of single-author studies such as
Hermione de Almeida’s Romantic Medicine and John Keats, but called
for a more holistic approach that would take into account “the ingrained,
unverbalised, preformative ‘medical gaze’ of . . . ‘Romantic’ culture.”
Andrew Cunningham and Nicholas Jardine crack the door to such a project
with their edited collection Romanticism and the Sciences (1990). Their
introductory essay entitled “The Age of Reflexion” suggests a general trend
in science and literature to turn inward to examine the self. The essays
which follow, however, give brief introductions to a number of specialized
topics instead of supporting an overarching thesis about Romantic literary
and scientific culture.13
The “medical gaze” to which Rousseau refers derives, of course, from the
theory of Michel Foucault. In The Birth of the Clinic, Foucault argues that, as
the “clinic” or French teaching hospital developed the new diagnostic tool of
morbid anatomy, the medical profession acquired far-reaching disciplinary
power. In the post-mortem examination, the interior pathological processes
of the body were brought to the surface, exposed to the “brightness” of the
medical gaze.14 Suddenly disease, once thought of in terms of taxonomic
categories, was localized in the body itself. Foucault quotes Xavier Bichat,
the French founder of “tissue theory,” or early pathology:
Fortwentyyears,frommorningtonight,youhavetakennotesatpatients’bedsides
on affections of the heart, the lungs, and the gastric viscera, and all is confusion
for you in the symptoms which, refusing to yield up their meaning, offer you a
succession of incoherent phenomena. Open up a few corpses: you will dissipate at
once the darkness that observation alone could not dissipate.15
Foucault emphasizes the insidious disciplinary control exercised by
medicine, masked particularly by the trope of bringing things to light.
Death permits the pathological anatomist to read the disease process back-
ward in time, granting him the power of seeing and knowing the previously
invisible and inviolable.
In the final pages of The Birth of the Clinic, Foucault gestures toward
the paradox apparent in the twin births of Romantic literature and clinical
medicine:
In what at first sight might seem a very strange way, the movement that sustained
lyricism in the nineteenth century was one and the same as that by which man
obtained positive knowledge of himself; but is it surprising that the figures of
knowledge and those of language should obey the same profound law, and that
the irruption of finitude should dominate, in the same way, this relation of man to
death, which, in the first case, authorizes a scientific discourse in a rational form, and in the second, opens up the source of a language that unfolds endlessly in the void left by the absence of the gods?¹⁶

Foucault sweeps aside his paradox by explaining that Romantic writers and doctors both responded to a confrontation with death, with clinicians dissecting cadavers to gain positive knowledge, and Romantic poets writing into the "void" left by the death of "the gods." But British medicine, which was sustaining the long pre-Darwinian twilight of natural theology, had yet to experience to any great degree Foucault's "death of the gods." British medical reformers, if not overtly religious themselves, often found themselves in league with religious thinkers, from Evangelicals to High-Church natural theologians. This book, then, poses Foucault's paradox as a starting place for an in-depth inquiry into British pre-Darwinian medical culture, but finds a Foucauldian explanation insufficient for British history.

In order to avoid the Foucauldian associations attached to "clinical," then, I will refer to the medicine of my Romantic materialists as "Romantic medicine." Within this category, I mean to include "reform medicine," the term used by medical historians to emphasize the licensing of apothecaries, surgeons, and general practitioners early in the century. But because my emphasis is less on the politics of medicine than its epistemology, I think "Romantic medicine" a more apt term for the argument presented here. It should be clear at this point that by "Romantic" doctors, I do not mean to conjure strict idealists or thoroughgoing vitalists, who, within the medical community, were few and far between (as I discuss in chapter two). Rather, I mean to indicate the vitalistic materialism typical of the medicine actually practiced in the pre-Darwinian period.

Most of the work to date on nineteenth-century literature and medicine has attempted to map Foucault's reading of French history onto the British scene.¹⁷ Lawrence Rothfield, in Vital Signs, reaches for a comprehensive definition of the "medical gaze."¹⁸ Rothfield argues that realist authors modeled themselves after doctors, borrowing cultural authority from the distanced, all-seeing gaze of the clinician. Like medicine, realism aspired to mimesis through exactitude in recording ordinary, unlovely facts and details. According to Rothfield, realist narrators, like doctors, cultivated clinical distance as well as precision of observation. This argument, however, creates a distorted trajectory of the rise and fall of the medical profession. Rothfield depicts medical prestige reaching its zenith in the first half of the nineteenth century and plummeting by late century, when naturalism and the detective story, in Rothfield's assessment, overtake realism.
Most medical historians, however, track a much later and steadier climb, culminating in the twentieth century with the age of antibiotics, when therapeutic success finally catches up with the increasing skill in diagnostics. They see a decline beginning only in the late twentieth century, related more to patients’ dissatisfaction with doctor/patient relationships than to epistemological doubt about scientific methodology.

Rothfield works with French as well as British texts, and extends his study to later in the nineteenth century, which might explain why he sees medicine as a powerful profession that generated literary emulation. But this Foucauldian argument for the disciplinary power of medicine cannot account particularly well for the interactions between literature and medicine early in nineteenth-century Britain. Responding to the cataclysmic changes in France, Britain kept its distance, sending medical students there for training, but retaining much of the national preference for British practice over French philosophy. While Britain sought to establish its own version of the clinic, or teaching hospital, British hospitals were less centralized, corpses for dissection were difficult to obtain, autopsies not widely practiced; thus, clinical-pathological correlations were drawn less frequently. Medical historians Roger French and Andrew Wear characterize the British medicine of the period in this way:

The hospitals were comparatively small and the doctor could not make wide-ranging comparisons. The physician, calling on his well-to-do client at home, still negotiated with him about his disease and its treatment. In this case as well as lower down the profession, the medical man based his treatment on what the patient told him about his illness, rather than on signs he could make the patient’s body give.

British medical reform focused on the licensing of the general practitioner, who competed with surgeons and physicians by blending the physical and intellectual approaches of both. The new general practitioners introduced French examination techniques of percussion and auscultation, but continued to negotiate treatment with the patient rather than relying primarily on physical signs. In part, this was an economic necessity. Unlike the state-appointed French physicians, British physicians had to be solicitous of their wealthy patrons, who were often of higher class status and who might easily consult another physician if unhappy with their diagnosis or care. For less remunerative cases, a glut of general practitioners competed with local surgeons and apothecaries. The literature of the period is full of accounts of the doctor struggling to make ends meet, his economic situation inducing him to maintain a high respect for his patients’ desires and opinions.
So, while Foucault makes the birth of hospital medicine in France the most important medical event of the nineteenth century, I will argue in chapter seven that the most important development of nineteenth-century British medicine was the “history and physical” format for diagnosing illness. Still in use today, the “history and physical” title for consultations between doctor and patients demonstrates its bipartite deep structure, which evolved over the course of the nineteenth century. Before 1800, British doctors relied heavily on the patient's narrative alone, without an examination of the body, prescribing sometimes by correspondence. Early in the century, case reports show an intermixture of patient's and doctor's language, and by mid-century the patient's subjective narration is often entitled “history,” with the doctor's objective evidence separated out and listed later under “physical examination.” In the nineteenth century, the rise of respect for scientific evidence had so elevated the reliance on the physical exam (and, especially in the late twentieth century, reliance on the physical evidence of the laboratory or imaging technology) over the patient's account of his or her experience that, if the two were in conflict, physical evidence superseded the patient's story. Thus, although the “history and physical” is still in use, the hermeneutic potential of one side of the dialectic, the patient's story, has been seriously degraded. Romantic medicine was remarkable, then, for its efforts to balance the patient's story and the body's evidence, and this balancing act was a breakthrough for medical diagnostics.

**Two Books: Natural Theology in Literature and Medicine**

The balanced dialectic of the history and physical coincided, crucially, with a number of other efforts to read two disparate texts in parallel. Natural theology, yoking science and religion in an effort to find them mutually reinforcing, supplied an overarching structure for these widespread interpretive practices. The structuring power of natural theology has been overlooked by many of the recent cultural histories of the period for a variety of reasons. First, natural theology looks, and probably is, epistemologically inconsistent, and is often therefore dismissed as a misguided ideology antagonistic to evolutionism. Second, natural theology has been mistakenly associated primarily with the elite “gentleman scientist” and less often with the urban, middle-class doctor struggling to attain professional status. Because of its prominent religious component, natural theology has too often been cast as politically conservative, when in fact it drew supporters...
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from across political ranks. Finally, as witnessed throughout the history of the "two cultures" debate, it is much neater to think of the sciences and the humanities in perpetual combat than to imagine a "both-and" culture that is also aware of some of the problems that mutual tolerance would entail.

But of course, for much of the history of science, "both-and" has been the name of the game: both science and religion, in particular. Steven Shapin reminds us that, throughout the scientific revolution, natural knowledge was viewed as "supporting and extending broadly religious aims".23

It was widely said that God had written two books by which his existence, attributes, and intentions might be known. The one was Holy Scripture, but the other was increasingly referred to in the early modern period as the Book of Nature.24

The metaphor of God's "two books" can be detected in early Christian writings and especially in the late fourth-century works of Saint Augustine, but came into heavy usage during the early modern period.25 In The Advancement of Learning (1605), Bacon writes:

Our saviour saith, "You err, not knowing the scriptures, nor the power of God"; laying before us two books or volumes to study, if we will be secured from error; first the scriptures, revealing the will of God, and then the creatures expressing his power; whereof the latter is a key unto the former: not only opening our understanding to conceive the true sense of the scriptures, by the general notions of reason and rules of speech; but chiefly opening our belief, in drawing us into a due meditation of the omnipotency of God, which is chiefly signed and engraven upon his works.26

According to Bacon, the second book, the "power" of God manifest in Nature, operated as a "key" to Scripture in order to increase both reason and faith, albeit indirectly. But Bacon warned that the two books should remain separate: one should not "unwisely mingle or confound these learnings together."

By the nineteenth century the two-books doctrine was the stuff of popular literature and conventional piety. Patrick Brontë quizzed his young children on the two books, and in their personal copy of Edward Young's Night Thoughts they would have imbibed the following:

Read Nature; Nature is a friend to truth;
Nature is Christian; preaches to mankind;
And bids dead matter aid us in our creed?27

Much of this literature seems to focus on making the study of Nature seem less daunting to the young and/or untrained. Nature is an open book, accessible to all readers; what's more, it's friendly and familiarly
Christian: “dead matter” is enlivened, anthropomorphized, and sacralized into eloquent preacher. Similarly, John Keble’s best-selling *Christian Year* makes the study of natural history into a devotional activity:

There is a book, who runs may read,  
Which heavenly truth imparts,  
And all the lore its scholars need,  
Pure eyes and Christian hearts,  
The works of God above, below,  
Within us and around,  
Are pages in that book, to show  
How God himself is found.  

In this light-hearted, simple verse, the only tools one needs for an accurate reading of Nature are “pure eyes and Christian hearts.” For a lay audience, as Susan Cannon writes, natural science “served to baptize fresh-air fun. One could roam the mountains or the moors, protected from the pressure of Evangelical duty, if one brought back beetles or bits of rock, for the study of nature was the study of one of God’s two great books.” At least in popular culture, the two-books doctrine widened the opportunities for Christian endeavor to include natural history, and in turn gave natural history a moral purpose.

But, as John Hedley Brooke notes, natural theology was characterized by an “ambivalence”: it could be used either to defend or to attack traditional religious interests. Not only could theologians claim the findings of natural philosophy as proof of God’s wisdom, but students of nature could also use the doctrine to mask revolutionary ideas in the clothing of orthodox piety. James Moore goes further in attributing this ambivalence to a conscious and expedient political arrangement: Bacon’s two-book doctrine is “a political compromise offering illustrations of the divine omnipotence . . . in exchange for the freedom of students of nature from harassment by interpreters of biblical texts.” Whereas Moore treats Bacon’s doctrine as “a piece of ideology . . . from the start,” my approach posits that the dual structure of natural theology can be seen as an interpretive strategy emerging from an ethical stance. Reading nineteenth-century literature for its treatment of alterity, one finds, rather than easy compromise, the development of a dialogue between naturalism and theology that sharpens and sustains both in a mutually productive engagement.

The two-books doctrine appears frequently throughout the history of poetry and fiction, even when no clear compromise is being forged between