

Erasmus Darwin and the Poetics of William Wordsworth: ‘Excitement without the Application of Gross and Violent Stimulants’:

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Alan Richardson’s 2001 study, *British Romanticism and the Science of the Mind*, recently drew attention to the importance of early neurological science for the study of Romanticism, but the philosophical medicine of Erasmus Darwin remains understudied by literary scholars, despite its importance within this context. This is despite the fact that Darwin’s interest in the properties of nerves,¹ and his appreciation of the active role played by the nervous system in the process of perception,² show that he is a thinker whom it is not anachronistic to describe as having neuroscientific preoccupations. The popularity of Darwin’s writings, moreover, made them a familiar reference among Romantic writers and their public. For these reasons, Darwin represents a key figure in the case for the neural account of Romanticism proposed by Richardson. In what follows, I will both endorse and qualify Richardson’s argument for the importance of Romantic neuroscience by examining the nature of Wordsworth’s relationship to Darwin’s medical thought. As Neil Vickers argues in his essay, ‘Coleridge and the Idea of “Psychological” Criticism’, also included in this special issue, Richardson’s emphasis on the neurological dimension of Romanticism represents a ‘materialist straitjacket’ when referred to the context of present-day scientific orthodoxy. Crucially, however, late eighteenth-century medicine was fully prepared to accept that mental states could have real, physical effects on the functioning of the body,³ and in this context the therapeutic aims of the Wordsworthian poetic can be seen to reflect an immaterialist philosophical orientation, despite making extensive use of proto-neurological concepts from Darwin’s *Zoonomia*.

Wordsworth is known to have requested a copy of Erasmus Darwin’s lengthy two volume medical treatise, *Zoonomia*, in early 1798,⁴ which he consulted whilst working on a

number of poems which were included in *Lyrical Ballads*, notably ‘The Idiot Boy’ and ‘Goody Blake and Harry Gill’, with the latter poem being based, as critics have noted,⁵ on the case history of ‘a young farmer in Warwickshire’ in the second volume of *Zoonomia*.⁶ Despite this evidence of direct influence, there has been relatively little extended critical analysis of the effect of Darwinian ideas on Wordsworth’s poetry. James Averill, in his 1978 article ‘Wordsworth and “Natural Science”: the Poetry of 1798’, considers Wordsworth’s interest in Darwin in the context of the wider course of scientific reading Wordsworth undertook in preparation for his planned philosophical poem, ‘The Recluse’, but suggests that Wordsworth merely dipped into Darwin’s ‘1300 pages of medicophilosophical prose’,⁷ mining Darwin’s analysis of madness in terms of diseases of ‘Increased Volition’⁸ for case histories on which poems in *Lyrical Ballads* are based, with the most direct derivation being apparent, of course, in ‘Goody Blake and Harry Gill’. Averill’s argument is that this Darwinian influence on Wordsworth is temporary, and is rejected with the failure of Wordsworth’s ‘Recluse’ project; he even interprets Wordsworth’s denunciation in ‘A Poet’s Epitaph’ of the ‘Philosopher’ as ‘One that would peep and botanize/ Upon his mother’s grave’⁹ as directed specifically at Darwin.¹⁰ For Averill, Darwin is the source for Wordsworth’s ‘experimentalism’¹¹ in the *Lyrical Ballads*, but not for much else in his poetry.

Desmond King-Hele’s 1986 study, *Erasmus Darwin and the Romantic Poets*, largely confines itself to tracing verbal echoes of Darwin’s verse, and King-Hele’s tendency to dismiss Darwin’s medical thinking as uninteresting¹² means that he spends little time considering the implications of Darwinian medicine for the Romantics. In contrast, Richard Matlak’s 1990 article, ‘Wordsworth’s Reading of *Zoonomia* in Early Spring’, and his later book, takes Darwin’s physiological theories extremely seriously as the source for Wordsworth’s characteristic emphasis on ‘interior body consciousness’,¹³ as represented by the well-known line ‘Felt in the blood and felt along the heart’ from *Tintern Abbey*,¹⁴ and the tendency of his ‘natural morality’ to insist on the benefits of an ‘interchange’ between nature and the self.¹⁵ Matlak suggests that ‘the conceptual division of Wordsworth’s *Lyrical Ballads* between nature lyrics and

experimental ballads, if these are perceived as poems of healthy and degenerate states of being, conforms to the general emphasis of *Zoonomia*'s two volumes - the first offering a theory of the body's systems, including the relationship of the body to nature, and the second giving a classification of diseases that result when body systems or the mind go awry',¹⁶ a view which makes *Lyrical Ballads* interestingly parallel Blake's *Songs of Innocence and Experience*. Matlak's arguments, however, have not attracted much critical attention, perhaps because his claims for Darwin's influence on Wordsworth's poetics are rather general.

In this essay, I would like to develop Matlak's claims for the significance of Wordsworth's interest in Darwin's *Zoonomia*, and especially the implications of his comment that 'what Darwin offered was a unified perspective inter-relating available medical information on physiology and psychology'.¹⁷ This emphasis on Darwin's importance as a systematizer of medical ideas seems to me key to understanding the intellectual significance of Darwinian medicine for Romantic writers such as Wordsworth. Darwin's *Zoonomia* did not just offer a taxonomy of bodily functions and diseases, but purported to offer a unified theory of body and mind representing the culmination both of philosophical accounts of sensation in the tradition of Locke and Hume, and of associationist analyses of mental processes following on from David Hartley. Although Darwin's and Wordsworth's contemporary, the philosopher Dugald Stewart, attacked *Zoonomia*'s metaphysics as 'crude and visionary',¹⁸ he nevertheless had to concede that Darwin's 'physiological theories concerning the mind' were calculated to 'produce a very lasting impression'.¹⁹ Darwin's medical ideas could take on this philosophical significance because of the important interrelationship between medicine and philosophy in eighteenth-century Britain: Locke and Hartley, we should remember, were both qualified doctors, and Hume's philosophy is arguably indebted to the medical milieu he was familiar with in Edinburgh.²⁰

Darwin's thought thus sums up an eighteenth century British empiricism against which a whole succession of literary critics from M H Abrams until the advent of New Historicism

assumed Wordsworth and Coleridge rebelled.²¹ I have argued elsewhere that this characterization of Wordsworth's and Coleridge's relationship to the British intellectual tradition is misleading, because it suggests their ideas essentially derived from intellectual sources outside Britain (usually identified with German Idealism), overlooking the long Berkeleyan tradition of philosophical immaterialism on which Wordsworth and Coleridge could draw, and which was represented in the 1790s by the work of Thomas Reid and Dugald Stewart, collectively known as the Scottish Common Sense school.²² Alan Barnes's essay in this special issue, 'Coleridge, Tom Wedgwood and the Relationship between Time and Space in Midlands Enlightenment Thought' presents detailed archival evidence of the personal contacts enjoyed by Coleridge's friend and patron, and Darwin's intellectual protégé, Tom Wedgwood, with the Edinburgh milieu of Common Sense philosophy in the 1790s, and shows the important bearing of these connections on philosophical preoccupations which the critical literature normally assumes to stem from a supposed early engagement with Kantian Idealism on Coleridge's part. Barnes's work in effect develops the argument of David W Ullrich's 1984 essay 'Distinctions in Poetic and Intellectual Influence: Coleridge's Use of Erasmus Darwin', which tracks references to Darwin across Coleridge's writings in order to show that Coleridge's attitude to Darwin's medical thought (as opposed to his poetry) remained consistently respectful over a long period,²³ and of Desmond King-Hele's 1994 essay 'Disenchanted Darwinians: Wordsworth, Coleridge and Blake', which argues that Wordsworth and Coleridge continued to be influenced by Darwinian thinking even after they were disillusioned by Darwin on a personal level.²⁴

The argument I am going to present here takes up the point that Wordsworth and Coleridge remained engaged with Darwin's medical thought in the 1790s and beyond in order to argue that Wordsworthian poetics, as exemplified in poems from the period 1798-1805 and as set out in the 'Preface to the *Lyrical Ballads*', can usefully be characterized as 'post-Darwinian', exploiting both senses of the prefix 'post' to mean 'influenced by' as well as 'moving beyond'. That is to say, Wordsworth's poetry and its accompanying poetic theory engage in a critical

dialogue with Darwin's philosophical medicine, adopting many characteristic Darwinian intellectual emphases but also, in some crucial respects, rejecting Darwin's overall intellectual position. Wordsworth's general indebtedness to ideas which he would have found in Darwin's *Zoonomia* is suggested by the well-known claim from the 'Preface to the *Lyrical Ballads*' that 'the human mind is capable of excitement without the application of gross and violent stimulants',²⁵ an assertion in which Wordsworth adopts a conception of poetry as a 'stimulant' deriving from Brunonian medical theory, with which Wordsworth and Coleridge would have come into close personal contact in 1790s Bristol through their friendship with Thomas Beddoes.

An important area of disagreement between the Wordsworth-Coleridge circle and Darwin, however, is indicated by Coleridge's well known description of Darwin in a letter as 'the everything, except the Christian'.²⁶ Matlak attempts to minimize the difference between Darwin's essentially materialist perspective²⁷ and the concept of a 'spiritual component to life' which he identifies in Wordsworth's poetic worldview, by referring to Darwin's own disclaimer that his medical theory had any implications for 'the immortal part of us, which is the object of religion'.²⁸ To characterize Darwin as any kind of theist, however, is to ignore the long-established and well-understood tradition of such disclaimers in eighteenth-century sceptical writing,²⁹ which would have ensured that the philosophically informed reader would have read between the lines at this point and interpreted Darwin to be implying, in line with Humean arguments about causality,³⁰ the total intellectual redundancy of a religious perspective.

Darwin's insistence on the lack of relationship between religious 'revelation'³¹ and his medical theorizing would itself have been theologically charged, in a context where theologians such as Paley and Butler employed arguments from biology in order to argue for providential design and the immortality of the human soul.³² As George Rousseau insists in an essay included in this special issue, "'Brainomania': Brain, Mind, and Soul in the Long Eighteenth Century", arguments about the mind-body relationship of the kind that are central to *Zoonomia* always

impinged on the theological category of the soul. Just how theologically sensitive scientific arguments about causality could be during this period is shown by the incident a few years later of the Leslie affair, where an Edinburgh cabal of Church of Scotland ministers accused Coleridge's friend John Leslie of atheism, on the grounds that he took a Humean approach to causality in his *Essay on Heat*.³³

As Dugald Stewart points out, the thoroughgoing nature of Darwin's materialism is suggested by the way he defines ideas in purely physiological terms as 'a contraction, or motion, or configuration, of the fibres which constitute the immediate organ of sense'.³⁴ Paradoxically, however, as we shall see, it is the very consistency of Darwin's materialism which makes his medical thought a productive source for Romantic poetics - which does not necessarily imply that Romanticism itself is intrinsically materialist in orientation, despite Alan Richardson's argument for a neural Romanticism. As Matthew Green argues in an essay included in this special issue, 'Blake, Darwin and the Promiscuity of Knowing: Rethinking Blake's Relationship to the Midlands Enlightenment', what is significant for Romantic contemporaries in Darwin's medical philosophy is its undermining of the epistemological dualism of the Lockean tradition, a dualism which was writ large in the insistence of Common Sense philosophers such as Reid and Stewart that no legitimate philosophical analogies could be drawn between the material world palpable to sensation and the immaterial realm of perception, conceived as a mental activity.³⁵

The poetics of Wordsworth, I will suggest, profits from Darwin's monistic medical account of body and mind as a continuum, whilst appealing to a conception of moral intuition which is figured as emanating, in the last analysis, from the immaterial realm of soul. Wordsworth's poetics thus manages to combine the kind of Berkeleyan philosophical intuitionism represented by the Common Sense school with an associationism which is defined in Darwinian terms as itself constituting a bodily process. Wordsworth's addition of immaterial moral intuition as a reference point allows Darwinian associationism to be reconceptualised as a

vital assimilation of the world whereby the materiality of Nature becomes progressively spiritualized through the physical workings of association itself, and it is this developmental integration of experience which Wordsworth not only represents taking place within the world of his poetry, but also envisages as his poetry's effect on the reader.

As was recognised by many nineteenth-century critics, including Coleridge, Wordsworth's was a fundamentally therapeutic poetics offering to restore the rightful predominance of soul in the total economy of the self³⁶ in the face of the danger posed by consumerist overstimulation of the senses, which threatened to produce a wholly materially constituted self which was no more than a Humean bundle of fleeting sensations.³⁷ As such critics emphasized, this Wordsworthian subordination of the senses to the immaterial principle of soul was essential to health,³⁸ in that without it there was always the danger that the self would degenerate into a chaotic collection of 'morbid' associative complexes which would represent so many different forms of addiction, defined, in nineteenth-century medical discourse, not only in terms of physical 'stimulants' such as alcohol and opium, but also, more insidiously, in terms of mental 'stimulants' such as the reading of the significantly named 'sensation novel', a habit which was often compared to dram drinking.³⁹ As we shall see, this effort to develop an ideal economy of the self, in which sensation would become an organ of the immaterial soul rather than tending to reduce the mind to the materiality of bodily responses, is one that is not confined to Wordsworth's poetry, but can be found in other popular early nineteenth-century writers.

The characterization of alcohol and opium as 'stimulants', rather than the narcotics or depressants as which nowadays we more readily regard them, and the emphasis on the threat of 'morbidty' posed by nervous overstimulation, reflect the terminology of Brunonian medicine, whose dominant influence on late eighteenth- and early nineteenth-century medical thought is shown by the way in which its vocabulary attained general intellectual currency. Both Erasmus Darwin and Thomas Beddoes were Brunonians,⁴⁰ something shown by their tendency to rely on

the ‘stimulants’ of alcohol and opium as means of treatment,⁴¹ and by both men’s proto-teetotal hostility towards recreational uses of alcohol, which in their view weakened body and mind by overstimulating them.⁴² Brunonian medicine, as set forth in the 1770s by its founder, the Edinburgh doctor John Brown, represented a radical nosological simplification in which all disease was understood as belonging to a continuum of under- or overstimulation of the vital principle, in the regulated discharge of whose energy health consisted.⁴³ In Darwin’s *Zoonomia*, the concept of ‘vital energy’ becomes that of a ‘sensorial power’ which is channelled by the nerves.⁴⁴

The Brunonian doctor’s first priority was to determine whether the patient’s symptoms reflected either a sthenic (understimulated) or asthenic (overstimulated) condition; his role then became to administer the appropriate quantity of stimulant.⁴⁵ In the case of sthenia, a strong stimulant would relieve the over-accumulation of vital energy which was causing the illness; a modern counterpart to this vitalist conception of disease as blocked energy flow could be found in the common twentieth-century notion that sexual frustration caused physical diseases such as cancer.⁴⁶ Asthenia, on the other hand, was understood as a condition of addiction to stimulation, repeated recourse to which had led to an excessive discharge of vital energy and hence to debilitation, a conception which echoed eighteenth-century anxieties about the debilitating, and even fatal, effects of masturbation.⁴⁷ Treatment in such a case was complicated by the fact that the stimulant could not just be suddenly withdrawn, for fear of altogether interrupting the discharge of vital energy which the body had become dependent on the stimulant to elicit, and so causing the patient’s death. The Brunonian doctor had either gradually to reduce the quantity of the stimulant, in order to wean the patient out of the addictive asthenic state, or to substitute an alternative, milder form of stimulation.⁴⁸

The simplicity and conceptual elegance of Brunonian medicine played an important role in its intellectual appeal, making it appear the medical equivalent of the Newtonian revolution.⁴⁹

In practice, however, the Brunonian approach to diagnosis and treatment posed considerable challenges. Although it was essential to determine whether the patient was in a sthenic or asthenic condition, the symptoms these presented could be almost identical.⁵⁰ Even when correctly diagnosed initially, the patient's condition was liable to iatrogenic modification, since a error in the quantity of stimulant prescribed for sthenic understimulation, for example, could easily reduce the patient to a condition of asthenic overstimulation - and, of course, in the 1790s there were no standardized strengths for drugs. In nineteenth-century medicine, these features of Brunonian treatment led to an emphasis on the importance of constant observation of the patient by an individual nurse, whose role was to monitor fluctuations between sthenic and asthenic states and administer smaller or larger quantities of stimulants in an attempt to maintain the patient in a state of equilibrium.⁵¹

An additional complication was created by the fact that, although John Brown himself seems to have regarded disease as a phenomenon of the entire bodily economy,⁵² later Brunonian doctors such as Darwin and Beddoes favoured a more localized diagnostic approach, at the level of individual organs.⁵³ This created the possibility that a disease might be the result, for example, of the asthenic condition of an individual organ such as the brain, whose 'morbid' overstimulated state might absorb a disproportionate amount of the body's supply of vital energy, as conveyed by the circulation of the blood, and so result in a sthenic understimulated state in other bodily organs, such as the stomach.⁵⁴ As I have argued elsewhere, this was exactly how Coleridge explained his own complicated state of physical and mental malaise in the early 1800s.⁵⁵

The relevance of Brunonian ideas, as reformulated by Darwin's *Zoonomia*, to the Wordsworthian poetic, is not just established by the biographical context of Wordsworth and Coleridge's close association with Thomas Beddoes's Pneumatic Institution in 1790s Bristol, but by a wider late eighteenth-century intellectual context in which medical ideas about nervous overstimulation cluster around the figure of the writer. Daniel Sanjev Roberts and Nigel Leask

have drawn attention to the important role played in the formulation of Wordsworth's and Coleridge's ideas in the 'Preface to the *Lyrical Ballads*' by their contemporaneous reading of the *Life of Burns* by the Liverpool doctor James Currie.⁵⁶ As Leask points out, Currie blames Burns's problems on a weakness of will, brought about partly by the tendency of poetic composition to enfeeble 'the governing powers of the mind' through its overstimulation of sensibility,⁵⁷ but also by his recourse to 'the 'stimulant regime' of alcohol and radical politics'.⁵⁸

What Leask describes as Currie's 'psychopathology of Robert Burns'⁵⁹ draws recognisably on Brunonian medical ideas about stimulants, and interestingly, as Leask points out, these are combined with elements of Common Sense philosophy in a similar way to what I will suggest is the combination of Darwinian ideas with philosophical intuitionism in the Wordsworthian poetic. For Currie, as Leask points out, Burns's lack of 'self-command' is similar to that of a maniac,⁶⁰ and this analogy echoes a common association in late eighteenth-century medical texts between engaging in writing, especially in imaginative forms of writing, and temporary forms of madness or hallucination, a syndrome which is often explained in Brunonian terms as resulting from the overstimulation, and consequent morbidity, of a particular part of the brain.⁶¹ Currie's allusion to Burns's radical politics as a mentally enfeebling 'stimulant' is echoed later in Southey's well-known analysis of the effects of the factory system in the *Quarterly Review*, where he remarks that 'discussions... upon ... government... have an effect upon men analogous to that which novel-reading produces upon girls: as long as the inebriation lasts, it unfits them to bear their parts in the realities of life, which appear 'stale, flat and unprofitable' to their heated and high-fed fancies'.⁶² Political radicalism for Southey becomes just another of the 'stimulants' to which it was notorious that factory workers resorted,⁶³ and in the Brunonian context suggested by the comparison to novel-reading the implication is that the repetitiveness of factory work is itself the cause of the politically febrile condition of factory workers, in whom the incessant stimulation of a limited number of neural receptors and muscle groups has given rise to a morbid asthenic condition. As we shall see, Wordsworth's analysis of

the character of Rivers in *The Borderers*, and autobiographical description in *The Prelude* of his response to the failure of the French Revolution, imply a similar Brunonian analysis of the mindset of 1790s radicalism.

Leask notes the enduring influence of Currie's analysis of the relationship between Burns's poetic genius and his character flaws,⁶⁴ and an example of the specifically Brunonian terms in which the dangers posed by the poetic temperament are still being described some five decades later can be found in the Christian Socialist F W Robertson's warning to his working-class audience at the Brighton Mechanic's Institute:

It is almost proverbial that the poetic temperament...is one of singular irritability of brain and nerve.

Even the placid Wordsworth says -

‘ We poets in our youth begin with gladness:

But thereof come in the end despondency and madness.’

And by this, too, we can understand, and compassionate, I do not say excuse, the force of that temptation of stimulants to which so many gifted natures have fallen a sacrifice.

Poetry is the language of excited feeling: properly of pure excitement. But stimulants, like wine, opium, and worse, can produce, or rather simulate, that state of rapturous and ecstatic feeling in which the seer should live; in which emotions succeed each other swiftly, and imagination works with preternatural power. Hence their seductive power.

Our higher feelings move our animal nature; and our animal nature, irritated, can call back a semblance of those emotions; but the whole difference between nobleness and

baseness lies in the question whether feeling begins from below or above. The degradation of genius, like the sensualizing of passion, takes place when men hope to reproduce, through stimulus of the lower nature, those glorious sensations which it once experienced when vivified from above. Imagination ennobles appetites which in themselves are low, and spiritualizes acts which are else only animal. But the pleasures which *begin* in the senses only sensualize.

Burns and Coleridge are the awful beacons to all who feel intensely, and are tempted to rekindle the vestal flames of genius, when they burn low, with earthly fire.⁶⁵

What is striking about Robertson's account of poetic genius is its unstable location at the interface between body, mind and soul. The 'state of rapturous and ecstatic feeling' which is poetry ideally represents the bodily response of 'animal nature' to the immaterial intuitions of 'higher feelings', in the form of the 'irritability of brain and nerve' in which poetic compositions originate and which they subsequently communicate to their readers. But because such 'irritability' is a physical state of the brain, it can also have a material cause in the form of 'stimulants' such as alcohol, opium and sexuality, and Robertson leaves moot the point of whether it is possible for readers to discriminate between the effects of poetry produced under the influence of these bodily sensations and those of the poetry prompted by immaterial intuitions. Presumably, the 'sensualizing' effects of the poetry of sensation would extend to its readership, and this certainly seems to be the subtext of attacks on the so-called 'spasmodic' poetry of the 1850s.⁶⁶ In practice, the only way for a nineteenth-century reader to be certain about whether they were improving or degrading themselves by reading poetry seems to have been by considering the biography of its author, and this certainly seems to be the criterion suggested by the Tractarian writer Charlotte M Yonge in her hugely popular 1853 novel *The Heir of Redclyffe*, where Guy, the novel's nervously irritable hero,⁶⁷ explains his avoidance even of 'descriptions of scenery'⁶⁸ in Byron's poetry on the grounds that 'there is danger in listening

to a man who is sure to misunderstand the voice of nature... a great chance of being led to stop short at the material beauty, or worse, to link human passions with the glories of nature, and so distort, defile, profane them.⁶⁹

Clark Lawlor, in his recent study *Consumption and Literature*, has drawn attention to the way in which widespread interest in the figure of the consumptive poet in late eighteenth- and early nineteenth-century popular culture reflected Brunonian ideas about the harmful physical effects of nervous overstimulation through writing. Figures such as Robert Pollok and Henry Kirke White were described as writing their own ‘life-blood’ into their feverishly written verses,⁷⁰ and Lawlor draws attention to Robert Southey’s involvement in promoting this cultural phenomenon as ‘a compulsive “collector” of consumptive young poets’,⁷¹ whose works he was frequently involved in editing. Charles Kingsley’s novel *Two Years Ago* testifies to the persistence of the connection between writing and consumption into the mid nineteenth-century, in the figure of the spasmodic poet Elsley Vavasour, whose tendency to consumption is suggested by Kingsley’s description of him as having his ‘breast-bone.. gradually growing into his stomach’,⁷² and to whom the doctor Tom Thurnall makes the characteristically Victorian recommendation of dumb-bells as a means of ‘opening.. [his] chest’.⁷³ As Lawlor points out, Southey’s preoccupation with the theme of consumption reflected several deaths from the condition in his own family,⁷⁴ and it is possible to conjecture that Southey’s own turn from poetry to prose, which he explained on the grounds that composing poetry ‘excited’ him too much, may have been prompted by fears that he too might develop consumption through nervous overstimulation, as much as by the economic motives to which critics have normally attributed this change of direction.⁷⁵

Southey sought treatment at Thomas Beddoes’s Pneumatic Institution in Bristol,⁷⁶ whose attempt to employ newly discovered gases such as nitrous oxide therapeutically reflected Brunonian ideas, as Lawlor notes,⁷⁷ and is repeatedly referenced in Darwin’s *Zoonomia*.⁷⁸

Although consumption represented a major focus of Beddoes's interests,⁷⁹ within the context of the Brunonian thinking shared by Beddoes and Darwin, the condition of consumption (which in any case was a large and ill-defined category) seems to have been paradigmatic of the sthenic understimulated state induced in other bodily organs, such as the lungs, by overstimulation of the brain. This explains the connection between poetry and consumption within the thought of the period, but also helps situate Beddoes's interest in consumption within the wider preoccupation with the way in which 'the modern consumer lifestyle sapped the nation's vital energy' which Lawlor notes Beddoes shared with his contemporary Thomas Trotter.⁸⁰ In Darwin's *Zoonomia*, the condition of 'torpor of the lungs'⁸¹ plays a prominent role in the analysis of fever which Darwin evidently regarded as his crowning achievement in medical theory,⁸² and is discussed with numerous references to Beddoes's work.⁸³ This suggests that Darwin and Beddoes may have regarded the cure of consumption as a test case for the cure of all other forms of disease, particularly given that Darwin links 'torpor of the lungs' to the miasmatic theory of disease transmission, attributing it to the effects of 'particles of contagious matter ... received by respiration'.⁸⁴

In the context of the close connection between Brunonian medicine, of which Darwin's *Zoonomia* was in the 1790s the most coherent and theoretically impressive formulation, and late eighteenth- and early nineteenth-century ideas about the effects of reading and writing, Wordsworth's claim in the 'Preface to the *Lyrical Ballads*' that his aim as a writer is to 'produce or enlarge' the human mind's capability of 'excitement without the application of gross and violent stimulants'⁸⁵ can be seen to imply a specifically therapeutic aim for his poetry which draws on themes in Darwin's and Beddoes's medical thought. Wordsworth characterizes his poetry as a milder form of stimulant, as compared not only to alcohol and opium, but also to the extravagancies of eighteenth-century poetic diction, which he sees as locked into an addictive spiral of overstimulation.⁸⁶ Darwin and Beddoes are similarly in quest of alternatives to the 'gross and violent stimulants' of opium and alcohol, a project which lies behind Beddoes's

Pneumatic Institution, where he experimented, for example, with the use of nitrous oxide as a stimulant which would act directly on the lungs of consumptives.⁸⁷ In *Zoonomia*, Darwin explains the therapeutic effects of travel in cases of consumption as resulting from the mild stimulants of sea-sickness and the neurological impact of a succession of new ideas,⁸⁸ stimulants which are sufficient to prevent the sthenic accumulation of ‘sensorial power’ (Darwin’s equivalent to vital energy) in the torpid lungs of the consumptive without being so powerful as to induce a problematic condition of asthenic overstimulation.

Wordsworth’s familiarity with this Brunonian model of cure through provision of a mild alternative stimulus to break the alternating cycle of sthenia and asthenia is shown by his *Lyrical Ballads* poem ‘The Idiot Boy’. Betty Foy is looking after her mortally ill neighbour Susan Gale, and sends her mentally retarded son to fetch the doctor, but when Johnny fails to return, she leaves Susan on her own to look for him, thinking he may have come to harm. Wordsworth describes what happens to Susan in the meantime:

Long Susan lay deep lost in thought;
 And many dreadful fears beset her,
 Both for her messenger and nurse;
 And as her mind grew worse and worse,
 Her body it grew better.

She turned, she tossed herself in bed,
 On all sides doubts and terrors met her;
 Point after point did she discuss;
 And, while her mind was fighting thus,
 Her body still grew better.

‘Alas! what is become of them?
 These fears can never be endured,
 I’ll to the wood.’ - The word scarce said,
 Did Susan rise up from her bed,
 As if by magic cured.⁸⁹

Wordsworth’s account of Susan’s seemingly miraculous recovery draws on Brunonian medical ideas about stimulants. Susan’s very anxiety about Betty and Johnny acts as a stimulant on her brain, thus preventing the accumulation of vital energy in her presumably sthenic, understimulated elderly body, and so enabling her recovery. A similar reference in *Lyrical Ballads* to the health-giving powers of a mild alternative stimulant can be found in ‘The Thorn’, where the garrulous narrator draws attention to the effects of pregnancy on the deranged Martha Ray:

Last Christmas when we talked of this,
 Old Father Simpson did maintain,
 That in her womb the infant wrought
 About its mother’s heart, and brought
 Her senses back again:
 And when at last her time drew near,
 Her looks were calm, her senses clear.⁹⁰

In this case, Martha’s mania reflects an asthenic state of the brain, brought about by her abandonment by Stephen Hill, a state of addiction to mental overstimulation which is gradually reduced by the diversion of vital energy (or Darwinian ‘sensorial power’) to the womb, perhaps as a simple consequence of pregnancy, or perhaps by the unborn child’s movements. Darwin had noted that the progress of consumption was arrested in pregnant women, something he attributes

to the fact that the demands of ‘oxygenating the blood of the foetus’ deprives the patient’s blood of the stimulant of oxygen which Beddoes had concluded was especially abundant in consumptive subjects,⁹¹ so that in both the case of mania which Wordsworth describes in ‘The Thorn’ and in Darwin’s example of consumptive women pregnancy is being supposed to act as a mild alternative stimulus which relieves the asthenic state of other organs, such as the brain or lungs.

The claim underlying Wordsworth’s ‘Preface to the *Lyrical Ballads*’ is that poetry itself can represent a similar kind of mild stimulant, and that consequently it can have a healing effect on its readers. This aspect of the Wordsworthian poetic was well understood in the nineteenth century, when members of the Wordsworth Society, for example, routinely made claims for Wordsworth as an exemplarily ‘healthy’, and health-giving, poet.⁹² The attribution of bodily effects to poetry by Wordsworth and his readers may seem less strange if we remember that early nineteenth-century medical thought was quite prepared to acknowledge that the imagination could play an important role in the curative process,⁹³ and that Robert Southey, for example, interpreted the startling successes of mesmeric treatment to this cause.⁹⁴ The pervasive somatization of mental processes in Darwin’s philosophical medicine only accentuated the imagination’s potential to be implicated in bodily disorder and cure, since Darwin understood phenomena such as the periodic recurrence of fever as instances of association at the level of bodily fibres, so that the doctor combatted disease by disrupting existing associations or establishing new ones.⁹⁵

The closeness of the link between the imagination and the body in medical thought of the period is shown by the widely accepted idea that the imagination had a direct influence on the conception of children, so that congenital deformity could be explained as a result of the mother’s being startled by an animal, or perhaps of her cravings in pregnancy.⁹⁶ Erasmus Darwin makes this influence of the imagination on conception central to his pioneering account

of evolution, suggesting that bodily adaption to the environment is at least partly a product of the influence of the desires of ‘lust, hunger and security’⁹⁷ on the imagination of the male parent.⁹⁸ Coleridge in the *Biographia Literaria* also suggests the closeness of the imagination to bodily processes when he comments in a footnote that ‘what medical physiologists affirms of certain secretions applies equally to our thoughts; they too must be taken up again into the circulation, and be again and again re-secreted in order to ensure a healthful vigour, both to the mind and to its intellectual offspring.’⁹⁹ The secretions in question, of course, are semen, and Coleridge is alluding to the ancient medical idea that semen is a kind of purified blood, excessive expenditure of which will enfeeble the male body and result in sickly children.¹⁰⁰

Coleridge’s comments on metre in the *Biographia Literaria* show that he conceives of poetry as a mild Brunonian stimulant, in the way that I am suggesting is central to Wordsworthian poetics. Coleridge argues against Wordsworth’s view in the ‘Preface to the *Lyrical Ballads*’ that there is no essential difference between the language of poetry and the language of prose on the grounds that ‘as the elements of metre owe their existence to a state of increased excitement, so the metre itself should be accompanied by the natural language of excitement’, comparing the effects of metre to ‘a medicated atmosphere, or ... wine during animated conversation’ and describing it as ‘a stimulant of the attention’.¹⁰¹ Coleridge’s references to excitement and stimulants make the Brunonian frame of reference of his account of metre clear, and the comparison of metre’s effects to ‘a medicated atmosphere’ recalls the context of Beddoes’s experiments with gases at the Pneumatic Institution, which aimed to use them as stimulants diffused in the atmosphere in order to act directly upon the lungs.

Coleridge makes an even more specifically Darwinian reference a few pages later, when he discusses Wordsworth’s well-known poem ‘Daffodils’. Remarking on Wordsworth’s tendency to include in his poetry ‘thoughts and images too great for the subject’, he finds that Wordsworth attaches too much weight to a Darwinian source of inspiration:

It is a well-known fact, that bright colours in motion both make and leave the strongest impressions on the eye. Nothing is more likely too, than that a vivid image or visual *spectrum*, thus originated, may become the link of association in recalling the feelings and images that had accompanied the original impression. But if we describe this in such lines, as

‘They flash upon that inward eye,
Which is the bliss of solitude!’

in what words shall we describe the joy of retrospection, when the images and virtuous actions of a whole well-spent life, pass before that conscience which is indeed the *inward* eye: which is indeed ‘*the bliss of solitude?*’ Assuredly we seem to sink most abruptly, not to say burlesquely, and almost as in a medley, from this couplet to-

‘And then my heart with pleasure fills,
And dances with the daffodils.’¹⁰²

Coleridge’s analysis of ‘Daffodils’ as dealing with the effect of ‘a vivid image or visual *spectrum*’ situates Wordsworth’s poem in a specifically Darwinian context, since even in 1817 when Coleridge was writing, *Zoonomia* contained by far the most elaborate scientific analysis of ‘ocular spectra’, or afterimages, that had been produced.¹⁰³ Darwin attached great significance to the fact that, after staring intensely at a strong colour, such as ‘a circular piece of red silk’ the afterimage appears to be a complementary colour, such as green.¹⁰⁴ Significantly for the claim I am making for the influence of Darwin’s medical thought on the poetics of Romanticism, Darwin thought that the phenomenon of the afterimage established the essential activity of bodily organs in the process of perception, since if visual perception was caused by ‘mechanical

impulse' or 'chemical combination' there would be no reason for the afterimage to be a different colour from the original image,¹⁰⁵ whereas if perception is the result of activity of the perceiving organ this phenomenon can be explained as produced by a contraction of 'antagonist fibres' in the retina in order to relieve muscular strain.¹⁰⁶ Darwin used the concept of 'spectra' to explain phenomena such as vertigo and delirium,¹⁰⁷ in a way which suggests that these after-effects of the muscular activity of perceptual organs are for him effectively equivalent to the 'ideas' invoked by philosophers such as Locke and Hume (which in any case, as we have already seen, he defines in terms of muscular motion).¹⁰⁸

Coleridge's characterization of 'Daffodils' as a poem which explores the lasting effects of Darwinian 'ocular spectra' suggests that other famous Wordsworthian passages, such as the continuing influence of the landscape of *Tintern Abbey* through 'sensations sweet/Felt in the blood, and felt along the heart',¹⁰⁹ might legitimately be interpreted in terms of Darwin's peculiarly somatic form of associationism, as Matlak suggests.¹¹⁰ Coleridge's detection of 'mental bombast'¹¹¹ in the poem, however, and his comment that it is the conscience which is the true 'inward eye', are indicative of an attempt to distance himself from the more Darwinian aspects of the poetry of the *Lyrical Ballads* which reflects the general tendency of Coleridge's later remarks on Wordsworth's poetry to echo Francis Jeffrey's unsympathetic criticism in the *Edinburgh Review* noted by modern commentators.¹¹² Coleridge's emphasis on the divide between the conscience and the material world to which both daffodils and 'ocular spectra' belong invokes a dualistic epistemology characteristic of the Common Sense philosophy to which Jeffrey and the *Edinburgh Review* circle subscribed,¹¹³ and which the Wordsworth of the *Lyrical Ballads* uses Darwin radically to de-emphasize, though, importantly, not to abolish altogether. As we shall see, Wordsworth preserves a place in his poetic for the kind of immaterial intuitions to which Common Sense philosophy appeals, in a way which makes the later Coleridgean interpretation of his poetry not a complete misrepresentation, but at the same time makes the role of those immaterial intuitions an extremely minimal one, something which

explains the complaints of more radical materialists, such as the early Shelley, that later Wordsworth poems such as *The Excursion*, where immaterial intuitions are accorded more prominent role, represent a betrayal of the subversive implications of the earlier poetry.¹¹⁴

In his fragmentary ‘Essay on Morals’, written in late 1798 after completing work on the first edition of *Lyrical Ballads*, Wordsworth criticizes systems of moral philosophy such as Godwin’s *Political Justice* on the basis that they are not ‘written with sufficient power to melt into our affections, to incorporate ... [themselves] with the blood and vital juices of our minds, and thence to have any influence worth our notice in forming those habits’ in which Wordsworth argues virtue consists.¹¹⁵ This Wordsworthian ambition for a form of discourse which would overcome the division between the mental and the corporeal and so irresistibly realize itself in praxis, as Godwin had claimed the adequate communication of ‘truth’ must do,¹¹⁶ implies, as Matlak has noted,¹¹⁷ the monist epistemology of Darwin in which what we call mind is simply a reflex of the body’s organic perceptual apparatus, and has been recognized as an early formulation of his poetic aims.¹¹⁸ Wordsworth suggests that the difference between a virtuous and a vicious frame of mind consists above all in a state of feeling, which he describes in terms which recall the Brunonian account of the effects of the stimulant:

We do not *argue* in defence of our *good* actions, we feel internally their beneficent effect; we are satisfied with this delicious sensation; and, even when we are called upon to justify our conduct, we perform the task with languor and indifference. Not so when we have been unworthily employed; then it is that we are all activity and keenness; then it is that we repair to systems of morality for arguments in defence of ourselves; and sure enough are we to find them. In this state of our minds lifeless words, and abstract propositions, will not be destitute of power to lay asleep the spirit of self-accusation and exclude the uneasiness of repentance. Thus confirmed and comforted, we are prepared immediately to transgress anew.¹¹⁹

The contrast Wordsworth draws here between the ‘languor’ inseparable from the ‘delicious sensation’ of virtue, and the activity inspired by the uneasy sensation of guilt suggests a Brunonian typology of sthenic and asthenic states. Those who are conscious of their own virtue are self-sufficing in the way Coleridge in the *Biographia Literaria* later suggests is characteristic of genius itself, in that ‘the conceptions of the mind may be so vivid and adequate, as to preclude ... [the] impulse to the realizing of them’.¹²⁰ As Coleridge’s use of this argument in his analysis of the character of Hamlet suggests,¹²¹ despite being the Wordsworthian ideal, this purely contemplative state is not altogether unproblematic, a point picked up by Leigh Hunt in a note to his 1814 satirical poem *The Feast of the Poets*, where he comments on the *Lyrical Ballads*:

It appears to me, that all the craving after intelligence, which Mr Wordsworth imagines to be the bane of the present state of society, is a healthy appetite in comparison to these morbid abstractions: the former tends, at any rate, to fix the eyes of mankind in a lively manner upon the persons that preside over their interests, and to keep up a certain demand for knowledge and public improvement; - the latter, under the guise of interesting us in the individuals of our species, turns our thoughts away from society and men altogether, and nourishes that eremitical vagueness of sensation - that making a business of reverie, - that despair of getting to any conclusion to any purpose, which is the next step to melancholy or indifference.¹²²

The Brunonian context of this characterization of Wordsworth’s political quietism as unhealthy is shown by Hunt’s use of the keyword ‘morbid’, and a slightly earlier reference to ‘stimulants’.¹²³ Hunt identifies a disparity between Wordsworth’s apparent summons to ‘the beauties of nature and the simplicities of life’ and the exaggerated nature of the poems in the *Lyrical Ballads*, full of ‘Idiot Boys, Mad Mothers, Wandering Jews, Visitations of Ague, and Frenzied Mariners, who are fated to accost us with tales that almost make one’s faculties topple

over'.¹²⁴ As is indicated by his comment that Wordsworth 'lives too much apart, and is subject ... to low-fevered tastes and solitary morbidities',¹²⁵ Hunt regards the contradiction between Wordsworth's principles and his poetic practice as symptomatic of his sthenic, understimulated condition, in which the Darwinian 'accumulation of sensorial power' vents itself in the 'violent activity'¹²⁶ of his sensationalist poems, or an equally excessive 'long lecture upon a thorn, or a story of a duffel-coat, till thorns and duffel-cloaks absolutely confound you with their importance in life'.¹²⁷ Hunt's comments echo earlier reviews of Wordsworth,¹²⁸ in a way which suggests that Hunt's Brunonian diagnosis of Wordsworthian morbidity was widely shared in the period, and represent, of course, a defence of the 'Cockney school of poetry' which Hunt had assembled around himself,¹²⁹ and which was itself typically described by reviewers in terms of a Brunonian vocabulary of nervous overstimulation.¹³⁰

Wordsworth's remarks on the 'activity and keenness' of those who seek 'to lay asleep the spirit of self-accusation and exclude the uneasiness of repentance',¹³¹ on the other hand, imply a Brunonian neuropsychology in which the guilty mind suffers from an obsessive dwelling on its crime, which through overstimulation of a limited set of neurones induces an addictive asthenic state in which it is impossible to think of anything else. This Brunonian account of the effects of remorse can be found in many other writers in the late eighteenth and early nineteenth century, and is used to explain the popular belief that ghosts of their victims appear to murderers;¹³² it is deployed at length, for example, in Dickens's account of Sykes's repeated visions of Nancy's eyes after he has murdered her.¹³³ Wordsworth suggests, however, that the mind is capable of recovering from the asthenic condition of remorse, at least to some extent, through the action of the alternative stimulant of 'lifeless words, and abstract propositions', a Brunonian characterization of intellectual abstraction which, as we have seen, Southey later echoes in his description of the 'inebriation' produced upon working men by abstract 'discussions ... upon ... government'.¹³⁴ In relieving the asthenic overstimulation of remorse, abstract thought acts in a way which is very similar to the effects of seasickness in Darwin's medicine, as an alternative

stimulus which can break the sthenic/asthenic cycle of consumption,¹³⁵ and so represents a perverse equivalent to the therapeutic effect which Wordsworth envisages for his poetry.

Wordsworth's remarks on the effects of guilt in the 'Essay on Morals' are related to the penetrating psychological analysis he presents of the Iago-like character of Rivers in the preface to his early tragedy, *The Borderers*,¹³⁶ and here too Wordsworth presents the state of remorse as an asthenic state of addiction to stimulants. Using Brunonian vocabulary, Wordsworth emphasizes Rivers's 'morbid state of mind' which 'requires constant provocatives',¹³⁷ and notes that this asthenic craving for stimulants is itself inherently vicious in tendency, in that 'good actions being for the most part in their nature silent and regularly progressive, they do not present those sudden results which can afford a sufficient stimulus to a troubled mind.'¹³⁸ For Wordsworth, Rivers's asthenic state of overstimulation leads him to seek satisfaction in moral perversity, since 'he is like a worn out voluptuary - he finds his temptation in strangeness',¹³⁹ an explanation which echoes late eighteenth-century accounts of addiction to vicious practices such as smoking and dram-drinking as resulting from the search for maximum irritation of the palette.¹⁴⁰

The combination of overstimulation and desensitization which Wordsworth attributes to the character of Rivers bears a strong resemblance, as critics have noted,¹⁴¹ to Wordsworth's description, in his autobiographical poem *The Prelude*, of his own state of mind after the failure of his hopes for the French Revolution, a connection indicated by Wordsworth's reuse of one of Rivers's lines from his unpublished and unperformed tragedy.¹⁴² Wordsworth comments that the moment when 'with open war/Britain opposed the Liberties of France'¹⁴³ represented a blow which 'struck ... deep/Into sensations near the heart',¹⁴⁴ suggesting in Darwinian fashion a profound disruption of associative processes at the level of bodily fibres themselves, and describes the influence of Coleridge, the 'Friend' to whom the poem is addressed, as providing 'a living help/To regulate my Soul'.¹⁴⁵ Wordsworth's emphasis here on the need for regulation of

the self in the face of disorganized associative processes is key to his therapeutic poetics, supplying an underlying central theme to *The Prelude* and marking the point at which he departs from the materialism implicit in Darwin's philosophical medicine.

To understand how *The Prelude* might be described as an epic of self-regulation, we need to recall the centrality of the scene of writing to contemporary medical accounts of nervous overstimulation, on which I have already commented. The process of writing itself, it will be remembered, was thought to lead to the asthenic state of addiction to stimulants, because it overstimulated a limited area of the brain.¹⁴⁶ Significantly, *The Prelude* opens with a scene of writing. Wordsworth greets the 'gentle breeze/That blows from the green fields and from the clouds/And from the sky',¹⁴⁷ and notes within himself:

A corresponding mild creative breeze,
A vital breeze which travelled gently on
O'er things which it had made, and is become
A tempest, a redundant energy
Vexing its own creation.¹⁴⁸

In line with Thomas Beddoes's experiments with gases at the Pneumatic Institute, the breeze which Wordsworth apostrophizes at the beginning of *The Prelude* appears to act as a Brunonian stimulant, awakening a complex psychosomatic associative process of the kind which Darwin describes in *Zoonomia*. Ominously, however, the 'vital breeze' of the associative process which has led to the composition of these opening lines (as Wordsworth tells us immediately afterwards)¹⁴⁹ has become a 'redundant energy', a description which echoes Brunonian medicine's characterization of the diseased sthenic and asthenic states in terms of excessive accumulation and excessive depletion of vital energy. This indicates what might be described as the central problematic of the Wordsworthian poetic, that the act of writing itself, through

overstimulation of the brain, disturbs the regulated discharge of vital energy (the ‘mild creative breeze’) which is essential to the therapeutic effect which Wordsworth envisages for his poetry as, in Brunonian terms, a mild stimulant.

Wordsworth’s subsequent description in Book One of *The Prelude* of his failed attempts to write an epic poem, which are disrupted by his own ‘unmanageable thoughts’,¹⁵⁰ develops the implications of this vicious circle, which *The Prelude* as a whole can be seen as an attempt to disrupt by invoking the healthier associative patterns laid down in Wordsworth’s childhood.¹⁵¹ Regarded in these terms, *The Prelude* becomes a poem whose central preoccupation is the possibility of its own writing, a concern which commentators have noticed without relating it to the specifically medical context which I am suggesting.¹⁵² On a biographical level, it is worth noting that Wordsworth’s well-known practice of composing his poetry while walking,¹⁵³ could plausibly also be characterized as a response to the Brunonian dilemma posed by writing, since walking represents a mild alternative physical stimulant which would prevent, or at least stave off, the neural overstimulation caused by poetic composition.

In the context of the widespread late eighteenth-century cultural stereotype of the consumptive poet described by Clark Lawlor,¹⁵⁴ which Brunonian ideas promoted, Wordsworth’s aim may be characterized as producing poetry which avoids becoming a ‘self-consuming artefact’, to use Stanley Fish’s phrase,¹⁵⁵ that is, an artefact which consumes not only itself but also its writer and audience in the kind of addictive spiral of neural overstimulation which was later attributed to the sensation novel.¹⁵⁶ Wordsworth’s high level of popularity in the 1830s and 1840s indicates the sheer cultural resonance acquired by his project of self-management in the face of nervous asthenia (a diagnosis that later became ‘neurasthenia’)¹⁵⁷ in the context of anxieties provoked by the Industrial Revolution and the rise of capitalism.¹⁵⁸ As is shown in Elizabeth Green Musselman’s recent study *Nervous Conditions: Science and the Body Politic in Early Industrial Britain*, a central theme of nineteenth-century scientists’ biographical

writings is that their scientific achievement was made possible by developing a level of self-management which warded off the nervous breakdown through overwork and ‘brain fever’ which was endemic among Victorians,¹⁵⁹ and Wordsworth’s *Prelude* represents a poetic equivalent to this kind of biographical narrative. Perhaps unsurprisingly in view of his own personal history of nervous and physical breakdown, Coleridge in the *Biographia Literaria* implicitly recognises Wordsworth’s achievement in transcending the Brunonian dilemma of writing as productive of nervous overstimulation when he argues against the received view that poetic genius is characterized by nervous irritability.¹⁶⁰

I have suggested that Wordsworth’s emphasis on the regulation of the self represents an aspect of his poetic which goes beyond Erasmus Darwin’s materialist position, incorporating an appeal to essentially immaterial intuitions corresponding to the Berkeleyan position of the Scottish Common Sense school of philosophy. To conclude, I will outline how in Wordsworth’s hands the philosophical and ideological implications of Darwin’s characteristically somatic form of associationism become reversed, so that associative processes are envisaged as progressively spiritualizing the body, rather than as implying that body and mind are really identical. In *The Prelude* Wordsworth emphasizes the way in which his upbringing has uniquely suited him to be a poet,¹⁶¹ and this emphasis on the circumstances of his education is in itself entirely compatible with Darwin’s somatic associationism. Where Wordsworth departs from Darwin, however, is in the way he explains his recovery from the disillusionment of the French Revolution, which in purely Darwinian terms would be an irrecoverable moral disaster of the kind Wordsworth describes in his analysis of the character of Rivers.

Darwin’s materialist stress on circumstances as entirely determinative of the individual is inadequate to explain the process of moral recovery and development described by Wordsworth, something indicated by the sceptical and relativist tone of Darwin’s view of education in *Zoonomia* as ‘the art of producing such happy hallucinations of ideas, as may be followed by

such voluntary exertions, as may be termed meritorious or amiable insanities.¹⁶² If virtue, as Darwin suggests, is determined by associations which are in themselves ungrounded, then there is no intrinsic reason why virtue should be preferred to vice: it is just as rational for those whose moral compass has been deranged by events, like Rivers or Wordsworth after the failure of the French Revolution, to pursue a life of crime as it is for others to pursue a life of virtue. The ascent of Snowdon which opens the last book of *The Prelude* sums up the Wordsworthian answer to this Darwinian conundrum, invoking an obscure source of moral intuition which is located outside the process of association. After describing his moonlight view of the cloudscape, and the ‘blue chasm...though which/Mounted the roar of waters’,¹⁶³ Wordsworth comments:

in that breach

Through which the homeless voice of waters rose,
That dark deep thoroughfare, had Nature lodged
The Soul, the Imagination of the whole.

A meditation rose in me that night
Upon the lonely Mountain when the scene
Had passed away, and it appeared to me
The perfect image of a mighty Mind,
Of one that feeds upon infinity
That is exalted by an underpresence,
The sense of God, or whatso'er is dim
Or vast in its own being...¹⁶⁴

Wordsworth here, as in the ‘spots of time’ episodes in *The Prelude* and in other poems such as the ‘Intimations of Immortality’ Ode, appears to invoke an intuition which transcends the material world, and so can represent the basis for a characterization of moral development as necessarily progressive. Given this one transcendental reference point, Darwin’s somatic associationism comes to represent, in the Wordsworthian worldview, a process whereby the material world is gradually spiritualized. As David Hume had pointed out in his *Essay on Morals*, from an associationist point of view a particular impulse, even if not very strong, can come to dominate the economy of the mind simply by being consistent.¹⁶⁵ Since an immaterial intuition is by definition removed from the influence of inconsistent material circumstances, Wordsworth can allude to a minimal and unspecific kind of intuition which nevertheless is conceived as eventually assimilating all other mental and physical impulses to itself through the somatic process of association theorized by Darwin. Describing the characteristics of ‘higher minds’,¹⁶⁶ Wordsworth writes:

Them the enduring and the transient both
 Serve to exalt; they build up greatest things
 From least suggestions, ever on the watch,
 Willing to work and to be wrought upon.
 They need not extraordinary calls
 To rouse them, in a world of life they live,
 By sensible impressions not enthralled,
 But quickened, roused, and made thereby more fit
 To hold communion with the invisible world.¹⁶⁷

Wordsworthian ‘higher minds’ are not dominated by ‘sensible impressions’ because they have developed an associative mechanism in which the material world is placed in relationship to the immaterial realm of intuition, so that the material becomes understood typologically, as

emblematic of the immaterial. Wordsworth's interpretation of his moonlight view from Snowdon as an 'image of a mighty Mind' is, of course, an example of this kind of typological reading of the material world, which can also be found in short poems such as 'To the Daisy'. John Keble's 1816 review of Wordsworth in the *Quarterly Review* shows that this typological dimension to Wordsworth's nature poetry was recognised by early nineteenth-century readers.¹⁶⁸

Wordsworth's resort to an appeal to immaterial intuition to escape the pitfall of moral determinism implied by Darwin's associationism can be paralleled in the work of the early nineteenth-century medical writer John Abercrombie, whose vastly popular 1830 work *Inquiries Concerning the Intellectual Powers and the Investigation of Truth* was frequently reprinted. Abercrombie identifies in the Brunonian concept of the addictive asthenic state caused by neural overstimulation an argument for the necessity of the Christian revelation:

The first volition, by which the mind consciously wanders from truth, or the moral feelings go astray from virtue, may impart a morbid influence which shall perpetuate itself and gain strength in future volitions, until the result shall be to poison the whole intellectual and moral system. Thus in the wondrous scheme of sequences which has been established in the economy of the human heart, one volition may impart a character to the future man, - the first downward step may be fatal.

Every candid observer of human nature must feel this statement to be consistent with truth; and by a simple and legitimate step of reasoning, a principle of the greatest interest seems to arise out of it. When this loss of harmony among the mental faculties has attained a certain degree, we do not perceive any power in the mind itself, capable of correcting the disorder which has been introduced into the moral system. Either, therefore, the evil is irremediable and hopeless, or we must look for an influence from without the mind, which may afford an adequate remedy. We are thus led to discover the

adaptation and the probability of the provisions of the Christian revelation, where an influence is indeed disclosed to us, capable of restoring the harmony which has been destroyed, and of raising man anew to the sound and healthy condition of a moral being.¹⁶⁹

Despite Abercrombie's more overtly Christian frame of reference, his argument here is essentially the same as the one I have been suggesting underlies Wordsworth's *Prelude*. In much the same way as Wordsworth suggests in his analysis of the character of Rivers that only vice can offer 'a sufficient stimulus to a troubled mind',¹⁷⁰ so too Abercrombie implies that it is the very excitement caused by deviating from truth or virtue which creates a morbid asthenic state whose end result is to 'poison the whole intellectual and moral system' by bringing about a growing addiction to the stimulant of vice. The mind can only escape from subjection to this material determinism through the immaterial intuition of 'an influence from without the mind', in a way which is similar to Wordsworth's escape from the exhausted mental condition to which the intoxication of Godwinian system-building has given rise through the immaterial intuitions which the 'spots of time' episodes in *The Prelude* represent.

The example of Abercrombie, a thinker steeped in the Scottish Common Sense philosophical tradition,¹⁷¹ shows that the transcendental element in Wordsworth's poetics, through which he transvalues Darwin's somatic associationism, does not have to be explained in terms of a putative influence from German Idealist philosophy, in the way which, following M H Abrams's well-known 1953 study *The Mirror and the Lamp*, has become conventional in Romantic criticism.¹⁷² This appeal to immaterial intuition in Wordsworth cannot be convincingly characterized as a symptom of increasing conservatism in his outlook, since it is already present in one of the *Lyrical Ballad* poems most directly derived from Darwin's *Zoonomia*, 'Goody Blake and Harry Gill'. What motivated Wordsworth's request for a copy of *Zoonomia* in 1798, I would suggest, was a desire to critique Darwin from a standpoint influenced by Scottish

Common Sense philosophy, something which preceded the visit to Germany by Wordsworth and Coleridge in 1798-1799 which has often been credited as the formative influence on Wordsworth's Romantic poetics.¹⁷³

Existing critical commentary does not address the question of what prompted Wordsworth in late February 1798 to ask for a copy of *Zoonomia*, which had already been out for several years, and which Wordsworth may well have read previously, given that Dorothy Wordsworth comments in mid-March that the two volumes had 'already completely answered the purpose for which William wrote for them'.¹⁷⁴ Apart from the specific case on which 'Goody Blake and Harry Gill' is based, the parallels between *Zoonomia* and poems in *Lyrical Ballads* to which James Averill draws attention¹⁷⁵ don't really explain why Wordsworth requested *Zoonomia* so urgently, since they are commonplaces of Brunonian medicine which Wordsworth could have come across in a wide variety of sources,¹⁷⁶ given that medicine in the late eighteenth century was not the specialized scientific discourse it is today, but was frequently the subject of articles in periodicals designed for a general readership.¹⁷⁷ What has been overlooked is that 1798 saw the publication of Thomas Brown's weighty *Observations on the Zoonomia of Erasmus Darwin*, a critical demolition of Darwin to which it is likely that Coleridge had drawn Wordsworth's attention.

It isn't necessary to ascertain a precise publication date for Brown's *Observations* to surmise that Wordsworth was familiar, at least at second-hand, with Brown's criticisms of Darwin, which reflect the viewpoint of the Scottish Common Sense School of philosophy. Brown, as a frighteningly precocious eighteen-year-old student of Dugald Stewart, had in fact drafted the thousand page manuscript in 1796, which was then sent to Darwin himself for comment, whose letters in response reflect more than a little exasperation at Brown's detailed expositions of the logical flaws in his arguments. In their accounts of this exchange, Desmond King-Hele and Thomas Dixon have both assumed that Brown sent the manuscript of his

Observations directly,¹⁷⁸ but in Stock's *Life of Beddoes* an undated letter from Darwin to Thomas Beddoes is reprinted, thanking Beddoes for 'your letter with observations on *Zoonomia* etc',¹⁷⁹ a letter which the editor notes 'contained remarks on *Zoonomia* by a correspondent of Dr Beddoes' and does not appear'.¹⁸⁰ Stock's wording leaves some room for doubt, but, given Beddoes's strong Edinburgh connections and interest in logical questions of the kind on which Brown focusses, there is a reasonable probability that his correspondent was Brown. If Brown's manuscript passed through Beddoes's hands on its way to Darwin, Coleridge, his associate in the Pneumatic Institution, may even have read it before its publication date. Even if we dismiss the hypothesis that Brown was Beddoes's correspondent, it is clear from one of Beddoes's letters that he himself had objections to Darwin's account of 'the production of ideas' which are similar in many ways to those raised by Brown¹⁸¹ - something perhaps not very surprising, as both Beddoes and Brown are products of the same Edinburgh intellectual milieu.

The influence of Common Sense philosophy, as represented by Brown, on Wordsworth's appeal to immaterial intuition can be seen in Wordsworth's 'Goody Blake and Harry Gill', whose source, the anecdote about a Warwickshire farmer in *Zoonomia*, Brown comments on in detail. Consistently with the proto-deconstructive method of *Observations on Zoonomia*, in which Brown adopts Darwin's premises only to demonstrate that they logically contradict the conclusions Darwin wishes to draw from them, Brown comments that this 'striking instance of the power of imagination'¹⁸² conflicts with Darwin's materialist definition of 'ideas' as consisting in the contractions of nervous fibres. As Brown points out, in Darwin's terms 'the ideas of heat, and cold, are different contractions of the same nerves',¹⁸³ but in this case the coverings which were heaped on the superstitious farmer must have captured the physical warmth given off by his body and so induced the 'contractions of nerves' which for Darwin constitute the idea of heat. According to Brown, the fact that the farmer nevertheless still felt cold shows that ideas cannot be legitimately defined simply as 'contractions of nerves', since this

would imply that ‘the same fibres can at once be contracted, in different ways’, which is impossible. Darwin’s anecdote thus contradicts his own argument.

Wordsworth’s poem ‘Goody Blake and Harry Gill’ can be seen to correspond to this critical perspective on Darwin’s reductionist physiology, in the emphasis Wordsworth places on the perverse nature of Harry Gill. In Wordsworth’s version, it isn’t only Harry Gill’s feeling of cold after Goody Blake’s curse that fails to correspond to his external physical circumstances, but his behaviour beforehand:

Now Harry he had long suspected
 This trespass of old Goody Blake,
 And vowed that she should be detected,
 And he on her would vengeance take.
 And oft from his warm fire he’d go,
 And to the fields his road would take
 And there, at night, in frost and snow,
 He watched to seize old Goody Blake.¹⁸⁴

Harry Gill’s vow of ‘vengeance’ seems a suspiciously exaggerated reaction to the theft of a few sticks out of a hedge, and the remarkable insensibility to physical discomfort shown by his willingness to stand all night in the snow just to catch Goody Blake in the act suggest that he may already be displaying the symptoms of asthenic overstimulation of the brain brought on by his obsession with this petty issue. In terms of Darwin’s *Zoonomia*, Harry Gill would correspond to the ‘temperament of increased Voluntarity’ whose possessors ‘attend to the slightest irritations or sensations, and immediately exert themselves to obtain or avoid the objects of them’; Darwin notes that ‘they can ... bear cold ... better than others’.¹⁸⁵ Wordsworth seems to be implying that

Harry Gill's superstitious reaction to Goody Blake's curse is merely the substitution of one kind of morbid obsession for another.

Wordsworth's emphasis on the perverseness of Harry Gill's behaviour suggests that he is an example of the psychology Wordsworth identifies in the character of Rivers in *The Borderers*. The poem's ending ('Now think, ye farmers all, I pray,/ Of Goody Blake and Harry Gill') appeals to an intuitive sense of justice at odds with the technicalities of legal definitions of property, a contrast which Paley's *Moral and Political Philosophy* attributes to our awareness of 'the intentions of God' over and above human institutions.¹⁸⁶ In the poem, the moment of intuition, when Harry Gill feels remorse for his actions, is conveyed by a sudden reference outside the human world:

The cold, cold moon above her head,
Thus on her knees did Goody pray,
Young Harry heard what she had said,
And icy-cold he turned away.¹⁸⁷

Wordsworth obviously intends Harry Gill's feeling of cold to resonate with 'the cold, cold moon', in a moment of moral transcendence which is closely akin to Mortimer's description of his inability to kill Herbert in *The Borderers*:

'Upwards I cast my eyes, and, through a crevice,
Beheld a star twinkling above my head,
And, by the living God, I could not do it.'¹⁸⁸

Wordsworth's additions to Darwin's anecdote have the effect of accentuating the anti-materialist implications of its emphasis on the power of the imagination, to which Brown draws

attention. The independence of Harry Gill's sensation of cold from his physical circumstances suggests that, through a Darwinian somatic associationism, his entire bodily functioning becomes dominated by the immaterial moral intuition of remorse, and thus graphically illustrates that spiritualization of the material which I have argued is central to the Wordsworthian poetic.

Notes

- ¹ Cf Erasmus Darwin, *Zoonomia*, fac ed of 1794–96 ed, 2 vols, introd. by Thom Verhave and Paul R Bindler (New York 1974), i.120–26.
- ² Darwin, *Zoonomia*, i.18–23.
- ³ Cf J Haygarth, *Of the Imagination, as a Cause and as a Cure of the Diseases of the Body* (Bath: Cadell and Davies, 1800).
- ⁴ Mary Moorman, *William Wordsworth: A Biography. The Early Years* (Oxford 1957), p.284 fn.
- ⁵ James H Averill, “Wordsworth and ‘Natural Science’: The Poetry of 1798,” *JEGP* 77 (1978), p.232–46 (p.239).
- ⁶ Darwin, *Zoonomia*, ii.359.
- ⁷ Averill, “Wordsworth and ‘Natural Science’,” p.240.
- ⁸ Darwin, *Zoonomia*, ii.350–55.
- ⁹ William Wordsworth, “A Poet’s Epitaph,” in *The Oxford Authors: William Wordsworth*, ed. Stephen Gill (Oxford 1984), p.151–52 (l.19–20).
- ¹⁰ Averill, “Wordsworth and ‘Natural Science’,” p.245.
- ¹¹ James H Averill, *Wordsworth and the Poetry of Human Suffering* (Ithaca, NY, 1980), p.158.
- ¹² Desmond King-Hele, *Erasmus Darwin: A Life of Unequalled Achievement* (London 1999), p.289.
- ¹³ Richard Matlak, “Wordsworth’s Reading of *Zoonomia* in Early Spring,” *The Wordsworth Circle* 21 (1990), p.76–81 (p.78).
- ¹⁴ William Wordsworth, “Lines Written a Few Miles Above Tintern Abbey,” in *Wordsworth*, ed. Gill, p.131–35 (l. 29).
- ¹⁵ Matlak, “Wordsworth’s Reading of *Zoonomia*,” p.79.
- ¹⁶ Richard E Matlak, *The Poetry of Relationship: The Wordsworths and Coleridge 1797–1800* (Houndmills 1997), p.112.
- ¹⁷ Matlak, “Wordsworth’s Reading of *Zoonomia*,” p.80.

¹⁸Dugald Stewart, "Account of the Life and Writings of Thomas Reid, D. D," in Thomas Reid, *Works*, 7th ed., ed. William Hamilton (Edinburgh 1872), p.1-38 (p.19).

¹⁹Stewart, "Life of Reid," p.19–20.

²⁰ Hume was a friend of the renowned Edinburgh doctor, William Cullen. See "Cullen" in John W Yolton, John Valdimir Price, and John Stephens, eds., *The Dictionary of Eighteenth-Century British Philosophers*, 2 vols (Bristol 1999), i.244–46 (p. 245).

²¹ Eg Raimonda Modiano, *Coleridge and the Concept of Nature* (London and Basingstoke 1985), p.128.

²²Gavin Budge, "Introduction: Empiricism, Romanticism and the Politics of Common Sense," in *Romantic Empiricism: Poetics and the Philosophy of Common Sense, 1780–1830*, ed. Gavin Budge (Lewisburg, PA, forthcoming).

²³David W Ullrich, "Distinctions in Poetic and Intellectual Influence: Coleridge's Use of Erasmus Darwin," *Wordsworth Circle* 15:2 (1984), p.74–80.

²⁴Desmond King-Hele, "Disenchanted Darwinians: Wordsworth, Coleridge and Blake," *Wordsworth Circle* 25:2 (1994), p.114–18.

²⁵William Wordsworth, *Prose Works*, 3 vols, ed. W J B Owen and Jane Worthington Smyser (Oxford 1974), i.128.

²⁶S T Coleridge, *Collected Letters*, 6 vols, ed. E L Griggs (Oxford: Clarendon Press, 1956–66), i.177.

²⁷ In characterizing Darwin as a materialist, I am mindful of the caveat offered by Thom Verhave and Paul R Bindler in the introduction to their facsimile edition of *Zoonomia*, that 'whatever else Darwin may have been, a simple materialist he was not. His use of the concept of a "spirit of animation" makes his system ambiguous and apparently more vitalistic than materialistic. He was anti-reductionistic in that he objected to the explanation of animal function solely in terms of physics or chemistry.' (Darwin, *Zoonomia*, iv FN). In what follows, by describing Darwin as a materialist I mean to imply that a) like William Lawrence slightly later, he regarded the principle of vitality as inherent in the material organization of the body (Sharon Ruston, *Shelley and Vitality* [Houndmills 2005], p.46), and b) like Hume, he regarded religious explanations of bodily or intellectual phenomena as redundant (cf David Hume, *Enquiries Concerning Human Understanding and Concerning the Principles of Morals*, ed. P H Nidditch [Oxford 1975], p.72)

- ²⁸Matlak, "Wordsworth's Reading of *Zoonomia*," p.77–78.
- ²⁹David Berman, *A History of Atheism in Britain: From Hobbes to Russell* (London 1988), p.75–76.
- ³⁰Hume, *Enquiries*, p.72.
- ³¹Darwin, *Zoonomia*, i.109.
- ³²cf William Paley, *Natural Theology*, Chapter 3, in *Works* (London 1833), p.260–66; Joseph Butler, *Works*, 2 vols, ed. W E Gladstone (Oxford 1896), i.25.
- ³³Jack Morrell, "The Leslie Affair: Careers, Kirk and Politics in Edinburgh in 1805," *Scottish Historical Review* 54 (1975), p.63–82.
- ³⁴Stewart, "Life of Reid," p.19.
- ³⁵Reid, *Works*, p.127–28; Dugald Stewart, *Collected Works*, orig pub 1854, 11 vols, ed. William Hamilton, introd. by Knud Haakonssen (Bristol 1994), ii.54
- ³⁶S T Coleridge, *Biographia Literaria*, 2 vols, ed. James Engell and W Jackson Bate (Princeton University Press, 1983), i.30–31, 80; cf Aubrey De Vere, "Remarks on the Personal Character of Wordsworth's Poetry," in *Wordsworthiana: A Selection from Papers Read to the Wordsworth Society*, ed. William Angus Knight (London 1889), p.146–48.
- ³⁷David Hume, *A Treatise of Human Nature*, 2nd ed, ed. L A Selby-Bigge and P H Nidditch (Oxford 1978), p.252.
- ³⁸Cf Stopford Brooke, *Theology in the English Poets: Cowper, Coleridge, Wordsworth and Burns* (London and New York nd), p.60–62, 68–69.
- ³⁹H L Mansel, "Sensation Novels," *Quarterly Review* 113 (April 1863), p. 481-584 (p.485).
- ⁴⁰John Brown's son, William Cullen Brown, commented on Darwin's intellectual indebtedness to Brunonianism in the biographical account prefixed to his father's works (John Brown, *The Works of Dr John Brown*, 3 vols, introd. by William Cullen Brown [London 1804], p.lxix-lxx). Thomas Beddoes edited Brown's major work in 1795 (John Brown, *The Elements of Medicine*, 2 vols, ed. Thomas Beddoes [London 1795])
- ⁴¹King-Hele, *Darwin*, p.287.

⁴²Darwin, *Zoonomia*, ii.659 Thomas Beddoes, “Essay on the Preservation of the Physical Power of Enjoyment” in *Hygeia, or Essays Moral and Medical on the Causes Affecting the Personal State of Our Middling and Affluent Classes*, 3 vols (Bristol 1802–3), p.47–50 (separately paginated).

⁴³ This is well illustrated in the “Table of Excitement and Excitability” by Samuel Linch, included at the front of Brown, *Works*.

⁴⁴Darwin, *Zoonomia*, i.66–72.

⁴⁵Brown, *Works*, i.138–42.

⁴⁶ For an example, see W H Auden, “Miss Gee,” in *Collected Poems*, ed. Edward Mendelson (London 1976), p.132–34.

⁴⁷ See S A Tissot, “Essay upon the Disorders occasioned by Masturbation”, in *Three Essays*, trans Francis Bacon Lee, M Danes and A Hume MD, Dublin: Williams 1772, p.25-26 (separately paginated)

⁴⁸Brown, *Works*, i.145–49.

⁴⁹Brown, *Works*, i.lxxvi, 4–7.

⁵⁰Brown, *Works*, ii.184.

⁵¹Miriam Bailin, *The Sickroom in Victorian Fiction* (Cambridge 1994), p.5–10.

⁵²Brown, *Works*, i.142.

⁵³ Eg Darwin, *Zoonomia*, 2: 611–13; Brown, *Elements of Medicine*, i.cxxxvii–cxlv.

⁵⁴Alexander Crichton, *An Inquiry Into the Nature and Origin of Mental Derangement*, 3 vols (London 1798), ii.29–33.

⁵⁵Gavin Budge, “Indigestion and Imagination in Coleridge’s Critical Thought,” in *Romantic Empiricism* ed. Budge (Lewisburg, PA, forthcoming) See also Neil Vickers, “Coleridge’s ‘Abstruse Researches’,” in *Samuel Taylor Coleridge and the Sciences of Life*, ed. Nicholas Roe (Oxford 2001), p.155–74.

⁵⁶Daniel Sanjev Roberts, “Literature, Medical Science and Politics, 1795–1800: *Lyrical Ballads* and Currie’s *Life of Burns*,” in *A Natural Delineation of the Passions’: The Historic Moment of Lyrical Ballads*, ed. Cedric Barfoot (Amsterdam and New York 2003), p.115–28 Nigel Leask, “Robert Burns and Common Sense Philosophy,” in *Romantic Empiricism*, ed. Budge (Lewisburg, PA, forthcoming).

⁵⁷James Currie, *The Works of Robert Burns; with An Account of His Life, and A Criticism on His Writings. To Which Are Prefixed, Some Observations on the Character and Condition of the Scottish Peasantry*, 4 vols (Liverpool, London, Edinburgh, 1800), i.236 Cited in Leask, “Robert Burns and Common Sense Philosophy.”

⁵⁸Leask, “Robert Burns and Common Sense Philosophy.”

⁵⁹Leask, “Robert Burns and Common Sense Philosophy.”

⁶⁰Leask, “Robert Burns and Common Sense Philosophy.”

⁶¹S A Tissot, “An Essay on Diseases incidental to Literary and Sedentary Persons, with Proper Rules for Preventing their Fatal Consequences and Instructions for their Cure”, in *Three Essays*, trans Francis Bacon Lee, M Danes and A Hume MD, Dublin: Williams 1772, p. 22-24 (separately paginated); Crichton, *Mental Derangement*, ii.29–33.

⁶²Robert Southey, review of *Propositions for ameliorating the Condition of the Poor* etc by P Colquhoun, *Quarterly Review* 8 (1812), p.319-56 (p.353).

⁶³Peter Melville Logan, *Nerves and Narratives: A Cultural History of Hysteria in Nineteenth-Century British Prose* (Berkeley 1997), p.77–78.

⁶⁴Leask, “Robert Burns and Common Sense Philosophy.”

⁶⁵F W Robertson, “Two Lectures on the Influence of Poetry on the Working Classes,” in *Lectures and Addresses on Literary and Social Topics* (1858), p.110–11, reproduced in Gavin Budge, ed., *Aesthetics and Religion in Nineteenth-Century Britain*, 6 vols (Bristol 2003), vol 6.

⁶⁶Cf Charles Kingsley, “Alexander Smith and Alexander Pope,” *Fraser’s Magazine* 48 (1853), p. 452-66 (p.459–62).

⁶⁷Charlotte M Yonge, *The Heir of Redclyffe*, ed. Barbara Dennis (Oxford 1997), p.82–83.

⁶⁸Yonge, *Heir*, 399.

⁶⁹Yonge, *Heir*, 400.

⁷⁰Clark Lawlor, *Consumption and Literature: The Making of the Romantic Disease* (Basingstoke 2006), p.151, p.129.

⁷¹Lawlor, *Consumption and Literature*, p.131.

⁷²Charles Kingsley, *Two Years Ago* (London: Macmillan, 1886), p.186.

⁷³Kingsley, *Two Years Ago*, p.190.

⁷⁴Lawlor, *Consumption and Literature*, p.134.

⁷⁵Robert Southey, *Letters from England*, ed. Jack Simmons (Gloucester 1984), p.xxv.

⁷⁶W A Speck, *Robert Southey: Entire Man of Letters* (New Haven 2006), p.81.

⁷⁷Lawlor, *Consumption and Literature*, p.118.

⁷⁸Darwin, *Zoonomia*, ii.185, 287–97.

⁷⁹Cf Thomas Beddoes, *A Letter To Erasmus Darwin, M.D. On A New Method of Treating Pulmonary Consumption, and Some Other Diseases Hitherto Found Incurable* (Bristol: Murray and Johnson, 1793).

⁸⁰Lawlor, *Consumption and Literature*, p.117–18.

⁸¹Darwin, *Zoonomia*, ii.575–76.

⁸²Darwin, *Zoonomia*, ii.625.

⁸³Darwin, *Zoonomia*, ii.583–84, 609.

⁸⁴Darwin, *Zoonomia*, ii.575.

⁸⁵Wordsworth, *Prose*, i.128.

⁸⁶Wordsworth, *Prose*, i.160–62.

⁸⁷J E Stock, *Memoirs of the Life of Thomas Beddoes MD* (London 1811), p.178–79.

⁸⁸Darwin, *Zoonomia*, ii.290, 358.

⁸⁹William Wordsworth, “The Idiot Boy,” in *Wordsworth*, ed. Gill, p.67-80 (l. 422–36).

⁹⁰William Wordsworth, “The Thorn,” in *Wordsworth*, ed. Gill, p.59-66, (l. 148–54).

⁹¹Darwin, *Zoonomia*, i.301.

⁹²John Veitch, “The Theism of Wordsworth,” in *Wordsworthiana: A Selection of Papers Read to the Wordsworth Society*, ed. William Angus Knight (London 1889), p. 291-320 (p.306).

⁹³Cf Haygarth, *Of the Imagination*.

⁹⁴Southey, *Letters from England*, p. 318.

⁹⁵Darwin, *Zoonomia*, i.81–85.

- ⁹⁶ See G S Rousseau, “Pineapples, Pregnancy, Pica and *Peregrine Pickle*”, in G. S. Rousseau, *Enlightenment Borders: Pre- and Post-Modern Discourses; Medical, Scientific* (Manchester 1991), p.176–93.
- ⁹⁷ Darwin, *Zoonomia*, i.503.
- ⁹⁸ Darwin, *Zoonomia*, i.514–20.
- ⁹⁹ Coleridge, *Biographia*, i.231 fn.
- ¹⁰⁰ Mildred Wong, “Because It’s There: Morals, Medicine and Masturbation in the Nineteenth Century,” *University of Toronto Medical Journal* 79:3 (2002), p. 263-65 (p.264).
- ¹⁰¹ Coleridge, *Biographia*, ii.65–66.
- ¹⁰² Coleridge, *Biographia*, ii.136–37.
- ¹⁰³ Darwin, *Zoonomia*, i.532–43.
- ¹⁰⁴ Darwin, *Zoonomia*, i.14–18.
- ¹⁰⁵ Darwin, *Zoonomia*, i.537 I am following Desmond King-Hele’s suggestion that the paper by Robert Darwin which his father includes in *Zoonomia* was in fact written by Erasmus Darwin himself (*Darwin*, p.212–14).
- ¹⁰⁶ Darwin, *Zoonomia*, i.14–18.
- ¹⁰⁷ Darwin, *Zoonomia*, i.231–34, 18–23.
- ¹⁰⁸ Darwin, *Zoonomia*, i.17–18.
- ¹⁰⁹ Wordsworth, “Tintern Abbey,” 1.28–29.
- ¹¹⁰ Matlak, “Wordsworth’s Reading of *Zoonomia*,” p.78.
- ¹¹¹ Coleridge, *Biographia*, ii.136.
- ¹¹² Duncan Wu, *Wordsworth: An Inner Life* (Oxford 2002), p.226.
- ¹¹³ Stefan Collini, Donald Winch, and John Burrow, *That Noble Science of Politics: A Study in Nineteenth-Century Intellectual History* (Cambridge 1983), p.25.
- ¹¹⁴ Kenneth Neill Cameron, *Shelley: The Golden Years* (Cambridge, MA, 1974), p.200.
- ¹¹⁵ Wordsworth, *Prose*, i.103.
- ¹¹⁶ William Godwin, *Enquiry Concerning Political Justice and Its Influence of Modern Morals and Happiness*, ed. Isaac Kramnick (Harmondsworth 1976), p.297.

- ¹¹⁷Matlak, "Wordsworth's Reading of *Zoonomia*," p.79.
- ¹¹⁸Wordsworth, *Prose*, i.101.
- ¹¹⁹Wordsworth, *Prose*, i.104.
- ¹²⁰Coleridge, *Biographia*, i.32.
- ¹²¹S T Coleridge, *Lectures 1808–19 on Literature*, 2 vols, ed. R A Foakes (Princeton 1987), i.386–88.
- ¹²²Leigh Hunt, *The Feast of the Poets, with Notes, and Other Pieces in Verse* (London 1814), p.97.
- ¹²³Hunt, *Feast of the Poets*, p.96.
- ¹²⁴Hunt, *Feast of the Poets*, p.89–97.
- ¹²⁵Hunt, *Feast of the Poets*, p.107.
- ¹²⁶Darwin, *Zoonomia*, i.90.
- ¹²⁷Hunt, *Feast of the Poets*, p.77–80.
- ¹²⁸Eg Donald H Reiman, ed., *The Romantics Reviewed: Contemporary Reviews of British Romantic Writers*, 9 vols (New York 1972), i.312–14.
- ¹²⁹Jeffrey N Cox, *Poetry and Politics in the Cockney School: Keats, Shelley, Hunt and Their Circle* (Cambridge 1998).
- ¹³⁰Eg John O Hayden, ed., *Romantic Bards and British Reviewers: A Selected Edition of the Contemporary Reviews of the Works of Wordsworth, Coleridge, Byron, Keats and Shelley* (London 1971), p.506–7.
- ¹³¹Wordsworth, *Prose*, i.104.
- ¹³²Walter Scott, *Letters on Demonology and Witchcraft* (London 1830), p.6.
- ¹³³Charles Dickens, *Oliver Twist*, ed. Kathleen Tillotson (Oxford 1966), p.327, 347.
- ¹³⁴Southey, Review of Colquhoun, p.353.
- ¹³⁵Darwin, *Zoonomia*, ii.608.
- ¹³⁶Wordsworth, *Prose*, i.101.
- ¹³⁷Wordsworth, *Prose*, i.77.
- ¹³⁸Wordsworth, *Prose*, i.76.
- ¹³⁹Wordsworth, *Prose*, i.78.

¹⁴⁰William Marshall, *A Review of the Landscape, a Didactic Poem: Also of An Essay on the Picturesque: Together with Practical Remarks on Rural Ornament* (London 1795), p.153, reproduced in *Aesthetics and the Picturesque, 1795–1840*, introd. by Gavin Budge, 6 vols (Bristol 2001), vol 2.

¹⁴¹Geoffrey Hartman, *Wordsworth's Poetry, 1797–1814* (New Haven 1971), p.127–28.

¹⁴²William Wordsworth, *The Prelude*, in *Wordsworth*, ed. Gill , p.375-590 (x.828–29); William Wordsworth, *The Borderers*, ed. Robert Osborn (Ithaca, NY, 1982), p.210 (III.v. 1.31–32, 1797–99 text).

¹⁴³Wordsworth, *Prelude*, x.759–60.

¹⁴⁴Wordsworth, *Prelude*, x.772–73.

¹⁴⁵Wordsworth, *Prelude*, x.906–7.

¹⁴⁶Crichton, *Mental Derangement*, ii.35–39.

¹⁴⁷Wordsworth, *Prelude*, i.1–3.

¹⁴⁸Wordsworth, *Prelude*, i.43–47.

¹⁴⁹Wordsworth, *Prelude*, i.54–58.

¹⁵⁰Wordsworth, *Prelude*, i.149.

¹⁵¹Wordsworth, *Prelude*, i.272.

¹⁵²Hartman, *Wordsworth's Poetry*, p.208–9.

¹⁵³Juliet Barker, *Wordsworth: A Life* (Harmondsworth 2000), p.200.

¹⁵⁴Lawlor, *Consumption and Literature*, p.113.

¹⁵⁵Stanley E. Fish, *Self-Consuming Artifacts: The Experience of Seventeenth-Century Literature* (Berkeley 1972).

¹⁵⁶Mansel, "Sensation Novels," p.482–83.

¹⁵⁷Janet Oppenheim, *'Shattered Nerves': Doctors; Patients and Depression in Victorian England* (New York 1991), p.94–99.

¹⁵⁸C T Thackrah, *The Effects of Arts, Trades, and Professions, and of Civic States and Habits of Living: With Suggestions for the Removal of Many of the Agents Which Produce Disease, and Shorten the Duration of Life*, 2nd ed (London 1832), in *Embodied Selves: An Anthology of Psychological Texts 1830–1890*, ed. Sally Shuttleworth and Jenny Bourne Taylor (Oxford 1998), p.293–94.

¹⁵⁹Elizabeth Green Musselman, *Nervous Conditions: Science and the Body Politic in Early Industrial Britain* (Albany, NY, 2006), p.4–7; Oppenheim, *Shattered Nerves*, p.155–58.

¹⁶⁰Coleridge, *Biographia*, i.30–37.

¹⁶¹Eg Wordsworth, *Prelude*, v. 223–33.

¹⁶²Darwin, *Zoonomia*, ii.385–86.

¹⁶³Wordsworth, *Prelude*, xiii.56–58.

¹⁶⁴Wordsworth, *Prelude*, xiii.62–73.

¹⁶⁵Hume, *Enquiries*, p.271.

¹⁶⁶Wordsworth, *Prelude*, xiii: 90.

¹⁶⁷Wordsworth, *Prelude*, xiii: 97–105.

¹⁶⁸John Keble, “Wordsworth’s Poetry,” *Quarterly Review* 14 (1816), p.224.

¹⁶⁹John Abercrombie, *Inquiries Concerning the Intellectual Powers and the Investigation of Truth*, 13th ed (London 1849), p.341–42.

¹⁷⁰Wordsworth, *Prose*, i.76.

¹⁷¹Abercrombie, *Intellectual Powers*, p.19–29, 34.

¹⁷² See Alan Barnes’s essay in this issue for an argument that questions the view that Coleridge was seriously engaged in the study of Kant by early 1801, one of the main evidential bases for claims, such as Raimonda Modiano’s (*Concept of Nature*, p.128–34) that Wordsworth, who could not read German, was significantly influenced by Kantian ideas imbibed at second hand.

¹⁷³Modiano, *Concept of Nature*, p.128.

¹⁷⁴Matlak, “Wordsworth’s Reading of *Zoonomia*,” p.76.

¹⁷⁵Averill, “Wordsworth and ‘Natural Science’,” p.241–43.

¹⁷⁶ Eg Crichton, *Mental Derangement*.

¹⁷⁷ Eg John Ferriar, “Observations Concerning the Vital Principle,” *Memoirs of the Literary and Philosophical Society of Manchester* 3 (1790), p.216–41.

¹⁷⁸King-Hele, *Darwin*, p.314–15; Thomas Brown, *Life and Collected Works*, 8 vols, introd. by Thomas Dixon (Bristol 2003), i.vii.

¹⁷⁹Stock, *Beddoes*, p.xlv.

¹⁸⁰Stock, *Beddoes*, p.xlv.

¹⁸¹Stock, *Beddoes*, p.xl.

¹⁸²Brown, *Works*, ii.174.

¹⁸³Brown, *Works*, ii.174.

¹⁸⁴William Wordsworth, “Goody Blake and Harry Gill,” in *Wordsworth*, ed. Gill, p. 56-59 (l. 65–72).

¹⁸⁵Darwin, *Zoonomia*, i. 359.

¹⁸⁶Paley, *Works*, 136.

¹⁸⁷Wordsworth, “Goody Blake,” l.101–4.

¹⁸⁸Wordsworth, *Borderers*, 169 (l. 988–90, 1842 text).

