In Pursuit of Genius: 
Tracing the History of a Concept 
in English Writing, from the late Enlightenment 
to the dawn of the Twentieth Century 

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ACKNOWLEDGEMENTS

First and foremost I should like to thank Dr Michael Neve, whose excellent academic supervision, and exceptional pastoral care, have made the time spent on this thesis both highly illuminating and extremely enjoyable. Three years well spent.

My thanks also to Professor Janet Browne for her expert guidance concerning Darwin, and her meticulous scrutinising of drafted chapters. The advice, encouragement and practical assistance given so generously by Dr Sharon Messenger were also invaluable throughout the course of this project.

This thesis has benefited hugely from a wealth of scholarly discussion. It gives me pleasure to thank the Academic Staff, Research Fellows and PhD Students at the Wellcome Trust Centre for the History of Medicine at UCL for the period between 1999 and 2002, as well as participants at the British Academy ‘Locating the Victorians’ conference, at Imperial College, London, 12-15 July 2001. In particular, Dr David Aickin, Prof Hal Cook, Dr Ivan Crozier, Dr Martin Edwards, Dr Alex Goldbloom, Dr Stephen Jacyna, Prof Chris Lawrence, Phil Mills, Nafsika Thalassis and Dr John Waller, were generous in their advice and enthusiasm for this project. I should also like to thank the administrative and IT staff of the Wellcome Trust Centre for the History of Medicine at UCL, and the staff of the Wellcome Library for the History and Understanding of Medicine, for their assistance; the staff of UCL Library and Manuscripts Department; and the staffs of Cambridge University Library and the British Library. My thanks also to the Arts and Humanities Research Board, without whose sponsorship this thesis might never have been written.

This thesis was finally completed thanks to the support and encouragement of Sally Burnham, Tamsin Chambers, Anna Crozier, Andrea and John Essex, Tim Essex, Nicola Perrin, Reta and Murray Sweeney, Sarah Turner, Sarah Woolley, and the members and clergy of St Martin-in-the-Fields, London, and Toton Methodist Church.

in gloriæ et laudem Dei
This thesis examines the origins and development of the 'mad genius controversy', a very specific debate that emerged in Europe, specifically in the writings of the Italian criminal anthropologist Cesare Lombroso, in the late 1880s and 1890s. Up to now, historians have accepted that during the whole of the period under discussion, from the Enlightenment to the fin-de-siècle, the idea of 'genius' within certain types of élite British discourse was intimately connected with that of madness. This project illustrates the problems with this interpretation by establishing the ways in which the term 'genius' transmuted within élite scientific discussions over the course of the eighteenth and nineteenth centuries, and demonstrating in the process the degree to which 'genius' is a socially constructed idea.

In order to provide a new foundation for assessing the British biomedical response to the notion of a pathology of genius in the later nineteenth century, the project employs a long-view historical approach to trace the genealogy of 'genius' through a broad range of élite British writings from the late eighteenth century onwards. Beginning with an assessment of the ways in which 'genius' was described by later Enlightenment clergymen writers, the project reveals the powerful spiritual dimension that figured in discussions of the term. This thesis also tracks the ways in which the term acquired radical political connotations during the Romantic period, focusing particularly on the ways in which notions of 'genius' developed through the writings of Samuel Taylor Coleridge and William Hazlitt. The significance of these connotations is then traced through the influential scientific philosophy developed from the 1830s by William Whewell, and the ways in which the meanings of the term were altered by later Victorian gentleman naturalists, specifically Francis Galton. Tracing such a genealogy of 'genius' enables the historian to fully appreciate the significance of the later nineteenth-century British psychiatric ambivalence to continental ideas proposing the category of 'mad genius'.
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INTRODUCTION

In 1978 an American sociologist, George Becker, published a book, now out of print. Entitled The Mad Genius Controversy: A Study in the Sociology of Deviance, it argues for the existence in late nineteenth-century thought of a widespread debate, across Europe and in America, concerning the category of 'mad genius'.

Claiming that the Romantics tainted the previous Enlightenment view of genius as rational and sane with connotations of lunacy, Becker asserted that the Romantics intended their reconstruction of the label of genius to attribute a sense of 'otherness' to themselves. By doing this, Becker contended, the Romantics were able to distinguish themselves from the common herd. Becker then proposed that this project backfired from the second half of the nineteenth century when such Romantic genius was pathologised in medico-psychiatric literature. By the 1880s, in England, on the Continent and the United States, 'the topic of genius and madness had become a major theme of controversy'. In Becker's account therefore, the madness image cultivated by Romantics to indicate their 'otherness' became a self-fulfilling prophecy, enabling scientists and physicians later in the nineteenth century to promote the view that these men of originality were also liable to the charge of lunacy.

Up to now, historians, finding precedent for such beliefs in English maxims such as John Dryden's 'Great Wits are sure to Madness near ally'd; / And thin Partitions do their Bounds divide', have accepted Becker's analysis positing the existence of a mad genius controversy. Involving a relatively small number of elite intellectuals, prime among them the Italian criminologist Cesare Lombroso, the nature of the relationship between genius and insanity attracted comment from individuals in a number of nations, including France, Germany and America. Yet it is questionable how far intellectuals in Britain were aware of, or interested in, such a debate. Becker himself styles the interest in the possible relationship between genius and insanity as the 'Mad Genius Controversy'; it is not a phrase that was current in the late nineteenth century.

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2 Becker, Mad Genius Controversy, pp. 10-11, 13, 29.
Although the alleged relationship between genius and insanity has continued to generate interest throughout the twentieth and into the twenty-first centuries, the focus of the analysis has tended to be either sociological or psychological. Becker's interpretation serves his sociological aim: to comprehend the interactions between labelled individuals and their labellers. Concerned to restore a balanced sociological approach, Becker focused on these interactions so as to confront the prevailing view of labelled individuals being no more than the passive victims of imposed deviant identities. It was not Becker's purpose to engage in historical inquiry; his work should stand as a piece of theory-based sociological investigation. However its arguments have been appropriated across disciplines by historians content to accept the neat model Becker constructs.

Further treatments of the issue have emerged in the writings of psychologists. Over the course of the twentieth century, the relationship was generally restyled: 'genius' was replaced by 'creativity', and 'madness' by 'mental illness', with creativity studies becoming a recognised area within psychology from the 1950s. This is particularly visible in the works of Nancy Andreasen from the 1970s, as well as investigations by Ruth Richards, Hans Eysenck, R.W. Weisberg, Arnold M. Ludwig, and Dean Keith Simonton, while late twentieth-century works have examined the notion that genius might be linked to certain pathological conditions, such as autism.

Various other investigations have been made of a range of historical figures from a psychological point of view, and have commonly aimed to assess whether such

individuals' achievements were innate or learned. Thus in his recent work entitled *Genius Explained*, Michael Howe, a Professor of Psychology at Exeter University, employed a psycho-biographical approach in order to argue that genius is not a mysterious mystical gift, but a product of the combination of environment, personality and sheer hard work. Other writers have advocated a similar account: for instance Peter Gay, in his study of Mozart, examines Mozart's life by looking at how the composer was affected by environmental conditions such as upbringing and patronage. Following a similar line of investigation is Tia DeNora's research into the patronage support that she believes to have been key in the development of Beethoven's reputation as a musical genius.

The fact that the 'genius' is a category of interest to a range of disciplines, producing such a variety of research ostensibly discussing the same phenomenon, is indicative of the wide-ranging meanings attributed to the term. Before the Enlightenment, 'genius' was commonly used to denote a spirit, external to the individual. Literary scholars have traced the term's etymology from Classical Antiquity as an attendant protective spirit or deity, through to its allegorical usage during the Renaissance. 'Genius' emerged in English from the fourteenth century in its principal Latin sense, that of a guardian spirit. From the sixteenth century it was enlarged to refer to a characteristic quality or disposition, such as a 'natural aptitude' for some particular field. Similarly, from the seventeenth century, it was used with this spiritual connotation to characterise the 'prevailing spirit' or 'distinctive character' of person, place or era. Only from the Enlightenment did 'genius' come to signify what might be considered the common, modern understanding of the term, what the *Oxford English Dictionary* defines as 'inborn exalted intellectual power'. Each of the authors whose works are examined

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below developed their own conception of what genius was, the qualities that comprised it, and the relative balance of those qualities.

No previous attempt has been made to examine the word 'genius' itself, and to trace its historical uses, in the context of British history in the Enlightenment, Romantic and Victorian eras. In order to appreciate the wealth of meaning associated with the term 'genius' in the late nineteenth-century writings, and the effect this had on the British reaction to the notion of the mad genius discussed in Chapter 4, it becomes paramount to unearth the earlier genealogy of 'genius' in British terms. In doing so, this research reveals that Becker's analysis, whilst it may be an appropriate assessment of events and ideas in mainland Europe at this time, is not an accurate depiction of developments in British thought.

The present thesis is concerned with élite writings from both English and Scottish writers. Following the formation of Great Britain with the 1707 Act of Union, the term 'English' was frequently used to denote anyone native to any part of the British Isles. The very roots of the redefinition of 'genius' in Britain were in large part located in the writings of two Scottish Enlightenment clergymen. The following chapters thus provide a conceptual history of the usage of the term in Britain, revealing the political, institutional, religious and general cultural contexts for the etymology of the term. They demonstrate some of the ways in which, and the extent to which, 'genius' was transmuted in a variety of English élite intellectual published writings from the Enlightenment to the end of the nineteenth century. Concerned with élite literature within a variety of fields, theological, literary and scientific, with particular reference to the usage of 'genius' within science, this thesis maps élite constructions, and deconstructions, of the concept over several generations.

In tracing the shape-shifting nature of 'genius', the present research has involved the examination of a range of writings from different genres. The starting point has been the later Enlightenment authors who, influenced by the writings on originality by

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Edward Young, were among the first to set about defining genius in terms of an organic, innate entity, and in ways that included, for the first time in Britain, natural philosophers. In doing so, the thesis excludes the Anglican clergyman William Sharpe's Lockeian interpretation of genius in his *A Dissertation Upon Genius* (London, 1755), as it did not develop a philosophical distinction between different types of genius. Subsequent sources examined below have helped to track the rise of the idea of a scientific or philosophic genius, as is evident for instance in the writings of Humphry Davy and Samuel Taylor Coleridge. The period under discussion witnessed a series of important shifts in the usage of 'genius', with the rise and subsequent eclipse of the term within scientific literature. In order to gain a sense of the depth of meaning that 'genius' acquired particularly over the course of the first half of the nineteenth century, a range of works has been examined that are not directly related to science, such as the critical essays of William Hazlitt. Such analyses are necessary to enable the historian to appreciate some of the underlying reasons why the concept of 'genius' was gradually eclipsed within British scientific literature over the remainder of the nineteenth century.

After establishing the various shades of meaning of 'genius' in the late Enlightenment and the Romantic periods, the primary focus of the investigation shifts to the reaction to ideas of genius within British scientific literature itself. It is in the context of science, especially later nineteenth-century scientific naturalism, that the significance of the religious dimension emphasised firstly in the original, classical usage, secondly in a Christianised way by the late Enlightenment authors, and later in the writings of Coleridge in the Romantic period, becomes most apparent. In tracing this shift, scientific works directly pertaining to genius are examined, in conjunction with important general scientific works, such as those of William Whewell, Charles Lyell, Charles Darwin, William Benjamin Carpenter, Herbert Spencer, and Alfred Russel Wallace. Following these, psychiatric analyses of genius, and its proposed connection with insanity, are set in the context of psychiatric concerns of the period, as seen especially in the specialist periodical, *The Journal of Mental Science*, as well as works by John Conolly, John Charles Bucknill, Henry Maudsley and James Crichton-Browne.

In locating these changes within the attitudes, cultural experience and beliefs of the élite thinkers concerned, this thesis employs a methodology similar to that proposed by the Cambridge historian of political thought, Quentin Skinner. Skinner insists on situating
'the texts we study within such intellectual contexts as enable us to make sense of what their authors were doing in writing them.' He suggests that in using the 'ordinary techniques of historical enquiry', it becomes possible 'to grasp their concepts, to follow their distinctions, to appreciate their beliefs and, so far as possible, to see things their way.' Similarly, the present study follows the example of the method of interpretation espoused by Stefan Collini, John Burrow, and others that aims to recover the thought of the past in its complexity and in its own terms. Of particular relevance to the ideas of genius discussed below is the complexity of the religious beliefs held by the writers concerned. In this context, the present study reveals the difficulties of characterising 'genius' as an 'objective' category, when many of the scientists in the later nineteenth century still possessed vestiges of religious belief.

The question of objectivity within British science is a particularly important theme underlying the issues analysed in the following chapters. In an article of 1992, Lorraine Daston and Peter Galison outlined the moralisation of objectivity in the late nineteenth and twentieth centuries as it was reflected in scientific image making. They argue that the form of scientific objectivity emergent in nineteenth-century science was one that celebrated the patient, painstaking, persevering will and hard work of the scientist. It also demanded the scientist's detachment from nature through his own self-discipline, and a degree of self-effacement so as to avoid the contamination of results by the overlaying of a pet theory. The objectivity they describe is thus a highly moralised version, where the onus was placed on the scientist to divorce his own judgment, even his own imagination, from the evidence of nature. Daston and Galison suggest that this form of objectivity emerged in the mid-nineteenth century, but it becomes apparent, particularly in Chapter 3 below, that elements of this kind of approach to scientific methodology were present earlier in the works of the Anglican Cambridge savant and philosopher of science, William Whewell. Through the language of 'genius', Chapter 3 traces an important shift in the history of science: from Whewell's form of scientific

14 Daston and Galison, 'The image of objectivity', *Representations*, vol. 0, issue 40, Special Issue: Seeing Science (Fall 1992), 81-128.
15 Daston and Galison, 'The image of objectivity', pp. 82-83.
objectivity that retained a role for the imagination, to one where the scientist was expected to achieve discoveries within his chosen field, not through flashes of genius and insight or imagination, but through painstaking hard work and devotion to the prescribed scientific method.

There are numerous standpoints from which to explore this transmogrification of the term 'genius'. But studying a time frame as huge as the period between the late eighteenth century and the early twentieth century necessitates pursuing a very specific line of investigation. This thesis leaves to other scholars the historically rich material relating to other aspects of the notion of genius and its usage during this period in Britain. One could investigate, for example, the developing idea of celebrity, homing in on the nature of the hero. The notion of the hero was another emerging category of individual, and one of growing importance to Victorian society, clearly seen in the approach taken by the Scottish historian Thomas Carlyle, who focused from the 1840s on the history of great men. Equally rich seams, ones outside the scope of the present project, lie in the study of the popular usage of genius, particularly in popular biographies. Further investigations could assess the attitudes and beliefs about genius contained in phrenological literature, not discussed here except in relation to its exclusion from what came to be seen as 'proper' élite science.

Alternatively, one could focus on issues of gender and genius, so comprehensively explored by Christine Battersby. Gender, as a social construct, is a concept that describes the social and cultural sexual identity, as opposed to 'sex', which describes biological difference. As a basis of power relations, and as a language of sexual difference, historians of science have shown how gender is a useful analytical tool in discussing the organisation of scientific enterprise. Historians have investigated the role of women in intellectual life, revealing the grounds on which women were symbolically equated with nature as that which is known, in contrast to those who were capable of

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knowing and suited to abstract thought. It is important to note that genius was also a gendered characteristic. The sources discussed in the present thesis invariably take for granted that genius is a male quality, and this necessarily depicts the masculine angle. Over the course of the period under discussion, as the gender roles became more rigid and sharply defined during the nineteenth century, genius was more firmly established as a masculine quality. Whilst in the late eighteenth century individuals might be seen to possess both feminine and masculine qualities, during the nineteenth century beliefs about the gender roles became more dichotomous. Scientific epistemologies and language developed with a masculine character. Feminist thinkers, drawing attention to models of knowing that implicate such dichotomies as objective/subjective and rational/emotional, have located these with the masculine/feminine dichotomy. Thus within scientific epistemologies, masculine qualities, such as abstraction and objectivity, were privileged over feminine ones that were traditionally seen as more passionate and indicative of a greater sensibility. Such was the power of this cultural tradition that the eminent mathematician Mary Somerville, writing the first draft of her memoirs, suggested that genius was a characteristic denied her sex: 'I was conscious that I have never made a discovery myself, that I had no originality. I have perseverance and intelligence but no genius, that spark from heaven is not granted to the sex'.

Besides these approaches, a great deal could also be revealed by an examination of the reception of mad genius ideology in countries other than Britain. Preliminary research...


22 First manuscript draft of Mary Somerville, Personal Recollections, Somerville Collection, folder MSAU-2 in Dep.c.355, 168, cited in Kathryn A. Neeley, Mary Somerville: Science, Illumination, and the Female Mind (Cambridge, 2001), p. 188.
for the present investigation revealed a wealth of sources available for examining the extent of the 'mad genius controversy' in continental Europe and America, to do justice to which would require several further theses. Through the initial compilation of a list of intellectuals who discussed any ideas of 'genius', with particular reference to the idea of the 'mad genius', it became evident that assessments similar to the one undertaken here might be pursued in the archives of other countries, notably in Germany and America. However, other than Becker's book, the preliminary search revealed no other substantial secondary treatments of the idea of the mad genius in any of these countries, perhaps because the idea of mad genius was only a peripheral concern to individuals interested in wider ideas, such as the value of criminal anthropology. For instance, the American Dr James Kieman, one of the most vociferous advocates of the idea that genius and madness were not connected, contributed a number of articles over the course of more thirty years to journals such as the *Neurological Review and Alienist and Neurologist*. However, during the period relating to Becker's 'mad genius controversy', Kieman was a professor of forensic psychiatry at Kent College of Law in Chicago; where Kieman is discussed in secondary literature it is in relation to others of his research interests. Other Americans however argued from various positions that genius was linked with pathology or specifically insanity in some way.

In Germany, the writings of William Hirsch, Hermann Türc and Paul Radestock would be useful starting points to consider the idea of insanity and genius, since all three, from differing viewpoints, addressed directly the idea of the pathology of genius. It is not possible to predict with certainty what the outcomes of such investigations might be in these countries. It appears that there are areas both of overlap with British discussions, and areas of difference and disagreement. Where some authors, particularly in America, sympathised with the notion of a connection between genius and insanity,

24 See, for instance, the work of Arthur MacDonald, an ethicist at Clark University in Massachusetts, whose 'Genius and insanity', *Journal of Mental Science*, XXXVIII, no. 161 (April 1892), 186-195, was sympathetic to Lombroso's work; also N.K. Royse, who argued in his *A Study of Genius* (Chicago, 1891) that genius was pathology prone; and Kate Sanborn, whose *The Vanity and Insanity of Genius* (New York, 1886), suggested that genius and madness were on the same spectrum.
other authors, especially those from Germany, sought to rebut Lombroso’s claims. Doubtless further research would help to highlight the differences in ideas of genius located in different national contexts. As yet, this historical territory has not received the detailed attention it deserves.

Unlike many historical subjects, the writings deemed to comprise what has been labelled the ‘mad genius controversy’ have a very slight historiographical legacy. There is no extended historical treatment of the British material that Becker cites. In the absence of detailed historical scrutiny of this subject, the few subsequent works containing considerations of genius in nineteenth-century Britain, which touch specifically on the potential pathology of genius, have unquestioningly accepted Becker’s argument. These include work by the art historian Matthew Craske, who fully accepts the Becker thesis that there arose in the Romantic period the idea of the artistic genius as mad. Similarly, Roy Porter accepted Becker’s analysis without allowing for national differences, arguing that doctors from the Romantic period and into the twentieth century couched genius in specifically pathological terms. Moreover Christine Battersby accepts Becker’s argument that between 1836 and 1886 the view that genius is a form of madness was almost unanimous amongst writers in German and English.26

Only one work has attempted a comprehensive conceptual history of genius. The ambitiously titled volume, *Genius: The History of an Idea* (1989), edited by Penelope Murray, sets out to trace the development of the idea of genius from its classical origins in antiquity to ‘its current deconstruction in postmodernist criticism.’ Following a broadly chronological framework, the book focuses on areas deemed by the contributors to be significant moments or themes in the development of the concept.27 This makes for an eclectic array of studies: the chapters track different formulations of the concept in a host of different countries, at different periods, as well as covering a range of disciplines in which the term was used or investigated, including philosophy, music, art, mathematics, as well as psychoanalysis. Providing a whistle-stop tour of the idea from

antiquity to the twentieth century, it is a useful introduction to some of the ideas surrounding the formation of the idea of genius. However, in approaching the issue of the development of 'genius' in this fragmentary way, Murray's volume provides a series of unconnected histories of the concept, rather than achieving the impossible suggested by the title and providing one single history. Such a project nevertheless highlights the difficulty in providing a single linear conceptual history of a word that was interpreted in myriad ways across the centuries.

Murray's volume includes an article by Jonathan Bate concerning Shakespeare, which contains points he has subsequently expanded in his *The Genius of Shakespeare* (1997). Examining Shakespeare's reputation and the ways in which he became celebrated as a genius, Bate argues that literary critics in the eighteenth century were forced to create a separate category of 'native genius' for Shakespeare to account for his ability and achievements, different as they were from existing, particularly French, models of poetry based on arts and learning. However, Bate's assertion that Shakespeare, as a national icon, took over from 'God and King and became the deity of the secular Enlightenment and the guarantor of the new 'imagined community' of the nation-state', is to take Shakespeare's influence too far. While this may have been the prevailing view among certain literary élites, such as is exemplified in David Garrick's 'Jubilee Ode', in which he discussed Shakespeare as the 'greatest dramatic genius ever appeared' and characterised the playwright as 'the god of our idolatry', the Enlightenment writers on the concept of genius were not so exclusive in their attribution of the term.

The depth of meaning contained in the Enlightenment works on genius is revealed by the use of three sources, helpful in-depth studies delineating the meanings of concepts related to genius during the early part of the period under examination below. M.H. Abrams' classic on the Romantic literary imagination, *The Mirror and the Lamp* (1953), demonstrates the developments made into the premises, aims and methods of literary tradition by English and German Romantic writers, focusing on the theory of English

29 Bate, *Shakespeare*, p. 185.
poetry and other major arts during the four first decades of the nineteenth century. Rooting his study in the work of eighteenth-century aesthetics and the German Romantic influences on English Romantic writers, Abrams unpicks the strands of imitation, imagination and originality bound up with literary tradition, concepts that were key to the definitions of 'genius' at this period.

The other two works, James Engell's *The Creative Imagination* (1981), and Thomas McFarland's *Originality and Imagination* (1985), concentrate particularly on the conceptual development of notions of the imagination and originality during the course of the Enlightenment and the early nineteenth century. Their research into the developing range of meanings of the imagination, the faculty deemed by élite Enlightenment writers to be key to the existence of genius, helps to reveal the ways in which the category of genius was expanded. Engell's work reveals that the imagination by the end of the eighteenth century was deemed to be central to the creative process. McFarland's book, focusing on the Enlightenment and Romantic periods in both Britain and Germany, adds another dimension. He highlights the connection, and changing relationship, between the imagination, originality and beliefs about the soul. The spiritual aspect of genius was an important facet of the works that discussed the term during the late Enlightenment. It remained an important aspect for Romantic writers such as Coleridge, but as McFarland emphasises, the historical rise in the importance of the imagination witnessed the transfer of mental energy from the weakening concept of the soul to the imagination as an alternative vehicle. He shows that although neither imagination nor originality were particularly treasured in antiquity, they both became more important concepts during the eighteenth century, before both bursting 'into full flower' in the Romantic era. Above all, McFarland's work is helpful in demonstrating that the task to offer some general illumination on the concepts of 'originality', 'imagination' and even 'genius' is fraught with difficulty, illustrating that different authors possessed, for their own unique and personal reasons, an individual conception of what these terms meant.

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Besides these, Simon Schaffer, in his article on 'Genius in Romantic natural philosophy' (1990), has assessed the relationships between English and German philosophers in connection with the developing ideas of genius, within the basic structures of inquiry into nature that dominated European culture until the early nineteenth century. Schaffer’s paper is a useful starting point in discussing the way in which ideas of genius were politicised during the Romantic period, as he places the relationship between the power of genius and the power of the rules of training and taste in the context of Revolutionary debates on the place of the natural philosopher. Discussing developments in the terminology within German Romantic thought, Schaffer shows how the term came to be viewed as threatening to the established order of academic rules and their powers, due to its revolutionary connotations. He argues that in the aftermath of the French Revolution, natural philosophers used the term ‘genius’ to portray strategies for understanding and controlling power, with the research and teaching work of the professoriate being described in terms of the dangers of genius and the virtues of disciplined pedagogy. Extending this analysis, Chapter 2 seeks to illustrate how the issue of the politicisation of the term ‘genius’ became an important one in Britain during the Romantic period, particularly in terms of the impact the French Revolution had on ideas of both Samuel Taylor Coleridge and the essayist and painter William Hazlitt. An investigation of the political angle of the term, especially political positions that came to be seen as holding negative associations with French thought, helps to shed light on the apparent abandonment of language of genius in certain élite writings from the 1830s onwards.

The period covered by this project demonstrates not only how the concept of genius was politicised, but also how it was expanded to include individuals active in natural philosophy and the disciplines that came to be known collectively as ‘science’. This is an aspect disregarded in Becker’s discussion, since he argues the Romantic redefinition of genius ‘was directed primarily at poets and artists; they, more than others, were seen as dependant on a bountiful imagination and, as such, were most susceptible to madness.’ However there were important developments during this period in the language of genius in terms of its application to science.

37 Becker, Mad Genius Controversy, p. 70.
Only three secondary works discuss in detail the expansion of the genius concept to describe individuals in the realm of science. Schaffer shows how the work of Immanuel Kant (1724-1804), particularly his third *Kritik* (1790), denied usage of the term 'genius' to the natural philosopher, arguing that since it was reasonable and replicable, experiment could not be the prerogative of the elevated and isolated individual.38 How Kant's ideas were assimilated and modified by other philosophers such as F.W.J. von Schelling and the group which formed around him in Jena in 1798, and how these were then taken up by Schelling's disciple, Coleridge, form another area of consideration for Schaffer. Particularly notable is that Coleridge's translations and commentaries on Schelling helped to reassert the novelty of the claim that 'there is a philosophic, no less than a poetic genius' and, even more importantly, that this genius would be able to divine the basis of mental power through historical inquiry into the basis of natural power.39

Two other recent works within the history of science genre have elucidated the changing uses of genius, and the emergence of the 'scientific genius' category in relation to the first English natural philosopher to be so styled, Isaac Newton. In 1988, Richard Yeo tackled this issue by concentrating on the redefining and the retrospective usage of genius as it relates to Newton, and investigating how it was connected to debates on the methodology of science and the morality of its greatest exponents. Yeo shows how, during the eighteenth century, notions of the relationship between method and genius were challenged by the idea of the scientific genius as one able to transcend rules of method. He also offers valuable insight into assumptions about the links between intellectual and moral virtue which were threatened by the emerging idea that genius was distinguished by an extraordinary personality, able in the same instance to


break with established methods to make great discoveries, as well as able to transgress moral and social conventions.\textsuperscript{40}

Most recently, a new way has emerged by which such developments may be understood. An example of this is the kind of social history of science pioneered by Patricia Fara in her wide-ranging exposition, published in 2002, of the ways in which Newton's posthumous reputation was constructed. In her survey, Fara combines an array of detailed micro-studies of specific events and episodes, and locates them within a long-perspective framework, in order to indicate the broader shifts and longer-term developments at work.\textsuperscript{41} Her work supports a suggestion Geoffrey Cantor makes in relation to his work on Michael Faraday,\textsuperscript{42} that there is never simply one historical identity of a particular individual, but a host of ways in which reputations are constructed at particular times in order to fulfil the different purposes of the biographer.

But the present project also aims to emphasise that no long-view history of the concept will ever be a straightforward progress from one set of meanings to another, each bearing some relation to the ones before. Any in-depth analysis of the idea of 'genius' soon reveals the slippery nature of the term. Yet the problems facing the historian seeking to trace the development of such an ineffable quality can be overcome by employing the long-view approach. By tracking the ways in which meanings altered over time, this approach highlights the extent to which 'genius' is a sociocultural rather than an identifiable biological entity. The discussion above reveals that the kind of inquiry undertaken by psychologists and others, endeavouring to unearth the 'facts' about what constitutes genius or a genius, is an inadequate model for the historian to pursue. What matters is not what 'genius' is or might be, but what historical individuals believed it to be. Using 'genius' as a reference point in unpicking the ideas of a range of intellectuals across this period affords the historian a deeper appreciation of the shifting cultural values of the time: where 'genius' might mean the apogee of intellectual achievement to one intellectual, it might denote dangerous radical trends for

\textsuperscript{40} Richard Yeo, 'Genius, method, and morality: images of Newton in Britain, 1760-1860', Science in Context, 2, no. 2 (1988), 257-284.


another. That no two authors attributed identical meanings to genius renders it critical to examine the individual social and cultural contexts of each intellectual.

The research here shows the complexity surrounding 'genius': while the term did change, it was also eclipsed in certain spheres, being replaced by language that was deemed less politically loaded, or broader in its appeal. This also reveals ways in which terms can be adopted, adapted or dropped according to prevailing ideologies. This is particularly evident in Chapter 3, which charts the decline in the scientific élite's usage of 'genius' to denote excellence in science. Although 'genius' did persist in some élite scientific writings into the second half of the nineteenth century, the significance of the concept altered as it began to be associated with other qualities. The subsequent redefinition of the term from the 1840s onwards, emphasising the twin virtues of hard work and perseverance, indicates the kind of attributes that Victorian society prized most highly in its individuals of excellence, characteristics different from those previously attached to the term by Enlightenment and Romantic writers. Yet at the same time, there are important qualifications to the arguments of those who would seek to style this period as a general shift from religious to secular perceptions of genius. 'Genius' retained a spiritual dimension, not only for theologians throughout the nineteenth century, but also some scientists, as becomes clear in their attempts to reconcile the Darwinian view of nature with the existence of a Creator God. Thus, by 1891, when the work of Lombroso hit British booksellers' shelves in the translation by the sexologist and scientific populariser, Henry Havelock Ellis, the word 'genius' had radically altered in meaning in Britain. This thesis tracks these shifts in order to elucidate the reaction of the British psychiatrists to the psychiatric category of a mad genius.
CHAPTER 1: THE ENLIGHTENMENT AND THE
SOLITARY SCIENTIFIC GENIUS

Introduction

During the eighteenth century in Britain, and especially from the 1750s until the 1770s, 'genius' was used in poetry and discussed in prose works, but it appeared in a variety of guises, with no two authors attributing identical meanings to it. No distinct or homogeneous school of thought emerged typical of a tendency, identified by Roy Porter as being a central feature of the Enlightenment, towards toleration of disparate views rather than consensus.\(^1\) Recently, the term 'enlightenment' has been modified so as to emphasise the absence of a single, monolithic 'Enlightenment project', and to highlight the existence of a range of styles of thinking and species of natural knowledge that may fall under the heading 'enlightenments'. This chapter underlines its multifaceted nature. It also indicates a degree of cultural exchange between the English and Scottish Enlightenment traditions, encouraging the historian to eschew fixed distinctions between the two cultures.\(^2\) The explorations of meanings of 'genius' undertaken during this period principally by Scottish writers, were part of the wider tendency during the Enlightenment of investigating all aspects of the human experience using reasoned, critical inquiry.\(^3\) But this was reasoned inquiry firmly rooted in a religious framework. Through understanding this religious context, the full significance of their authors' words can be fully comprehended.

This chapter investigates how 'genius' was constructed in Enlightenment prose works, with particular attention to attitudes towards the effect of genius on physical and mental health, and the fragmentation of the term with the emergence of the idea of the 'scientific genius'. In doing so, it reveals the changing relationship between concepts of matter and spirit as it related to genius from the Enlightenment and into the 1820s. The first half of the chapter focuses principally on the ideas of the two Presbyterian

clergymen writers who produced monographs expressly on genius. The second section examines how Humphry Davy (1778-1829) developed this concept. Although usually portrayed as a Romantic scientist, Davy, a chemist and Director of the Royal Institution, was in matters of characterising genius, and in terms of the philosophy that underpinned his scientific investigations, heavily indebted to the Enlightenment.

The first of the authors considered below is William Duff (1732-1815), a writer and Scottish minister in Aberdeen. He produced two lengthy works on genius: An Essay on Original Genius (1767), a detailed discussion of how genius was constituted, and its sequel Critical Observations on the Writings of the Most Celebrated Original Geniuses in Poetry (1770), which provided detailed examples of the kind of writing Duff believed demonstrated genius. A Scottish Presbyterian, Duff was licensed and ordained by the presbytery in 1755, and served as a Scottish minister in several parishes in Aberdeenshire, and had reached the position of father of the synod by his death in 1815. Duff aimed to explain the nature of genius, in relation to both the arts and, unusually, in relation to the sciences.

An Essay on Genius (1774), by Alexander Gerard (1728-1795), is the third work to be discussed below. Gerard was a Scottish philosopher and theological writer. Gaining his M.A. at Marischal College in Aberdeen, he later completed his theological studies in Edinburgh, before being licensed as a preacher of the Church of Scotland in 1748. Appointed Professor of Divinity at Marischal College and minister at a local church in 1760, he later resigned both positions on his appointment to the chair of divinity at King’s College, Aberdeen in 1771. Besides being chaplain to the king, Gerard also supported the ‘Moderate’ party within the Church, and was moderator of the general assembly in 1764. In 1759 Gerard had written his acclaimed philosophical Essay on Taste, a work that subsequently prompted him to investigate ideas of genius. In his 1774 text, Gerard claimed to be filling a gap in the intellectual culture, challenging the

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view that 'it is reckoned a subject which can be reduced to no fixt or general principles; its phenomena are almost universally regarded as anomalous and inexplicable.'

Little is known about whether these men had contact with, or an awareness of, each other's work. Gerard, along with the Scottish poet and Professor of Moral Philosophy and Logic at Marischal College, James Beattie (1735-1803), were members of an Aberdeen literary and philosophical society of professors, known as the 'Wise Club', who met fortnightly at a tavern to discuss essays. Also a member of the club was Thomas Reid (1710-1796), who had been appointed Professor of Moral Philosophy at Glasgow in 1764. The men associated with this group were interested in the science of the mind or spirit. It seems likely, given their location, that they would have also known Duff, although there is no record of his having been a member of the club.

The discussions on genius appeared in a conservative climate, in which religious and poetical literature dominated. Of these works only Duff's Essay was reprinted (a second edition appeared in the same year of its initial publication). That only two authors contributed monographs describing a view of the nature of genius, and that the content of these works was rarely referred to subsequently, suggests that little intellectual interest was taken in the term. Yet the works of Duff and Gerard are important examples of the later Enlightenment development of the concepts of originality and the imagination, ideas that had been developed initially by two Englishmen: the poet and essayist Joseph Addison (1672-1719), and the poet Edward Young (1683-1765). Addison's work exerted a profound influence in eighteenth-century literature on creativity and genius, especially as his ideas came to be

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13 See Joseph Addison's article on genius in *The Spectator*, no. CLXI (London, 3 September 1711), and his eleven papers on the pleasures of the imagination published in the *The Spectator*, nos. CCCXCI-CCCCXXI (London, 21 June 1712–3 July 1712); also on genius, see Joseph Addison in *The Spectator*, no. 592 (London, 10 September 1714); Edward Young, *Conjectures on Original Composition* (London, 1759); see also Martha Woodmansee, *The Author, Art, and the Market: Rereading the History of Aesthetics* (New York, 1994), pp. 5, 6.
assimilated by Young. Young's seminal *Conjectures on Original Composition* of 1759, focused attention for the first time on the originality of the solitary individual responsible for a piece of writing,¹⁴ though this work initially attracted little attention in England. Thus discussion concerning genius during the Enlightenment was confined to a small élite.

**Defining Genius**

The concept of the imagination was of the utmost importance to Duff's and to Gerard's constructions of genius. In 1767 Duff wrote, 'So indispensably necessary is this faculty in the composition of Genius, that all the discoveries in science, and all the inventions and improvements in art, if we except such as have arisen from mere accident, derive their origin from its vigorous exertion.'¹⁵ Given the wider cultural importance of the concept of 'imagination' as it developed in this period, it may seem surprising that most of the secondary literature dealing with broad sweeps of Enlightenment culture barely mentions it at all. While the imagination began to be studied as a separate faculty in the seventeenth century, the concept as we know it today was a creation of the eighteenth century, one which occupied a critical place in the late eighteenth-century and Romantic visions of the creative process.¹⁶

By the time the Enlightenment authors on genius were writing, these thinkers, interested in the science of mind or spirit, increasingly associated genius more firmly with the imagination.¹⁷ For both Duff and Gerard, the imagination was the source of genius, Duff, for instance, believing it to be the faculty that distinguished different ranks of genius:

> 'ORIGINAL GENIUS is distinguished from every other degree of this quality, by a more vivid and a more comprehensive Imagination, which enables it both to take

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in a greater number of objects, and to conceive them more distinctly; ... above all, it is distinguished by an inventive and plastic Imagination, by which it sketches out a creation of its own." Similarly, Gerard argued that 'genius of every kind derives its immediate origin from the imagination.' It was this faculty that acted as a medium between earth and heaven, the world of matter and the world of spirit: imagination for Gerard could 'carry us through extensive, distant, and untrodden fields of thought. It can dart in an instant, from earth to heaven, and from heaven to earth; it can run with the greatest ease and celerity, through the whole compass of nature, and even beyond its utmost limits.' As a medical category within eighteenth-century thought, the imagination was viewed as a conduit between mind and matter. In their use of the term 'imagination', Duff and Gerard focused more on the mental and spiritual quality of the genius, as evidenced by the creative imagination, and less on the realm of the physical, dominated by sensation and method.

The concept of the imagination provided Duff and Gerard with a vehicle by which they could reassert the spiritual nature of humanity, reacting against the doctrines of materialism and dualism that had gained ground over the seventeenth and eighteenth centuries. The vocabulary of imagination helped in this distinction, being employed as a fluid boundary, identifying the organic dialectic between matter and spirit, nature (Creation) and mind (the person creating). This echoes an ancient dichotomy as to how far genius was attributable to external or internal forces, questions that had their roots in the thought of ancient Greece. The novelty of the work of Duff and Gerard was their shift away from reliance on an external divine force towards ideas of innate genius and internal divine inspiration. It marks the beginning of seeking to root supernatural phenomena in rational, natural terms.

Genius, as it was identified with the imagination, was one phenomenon bridging the divide between the spiritual and the temporal realms; for Duff and Gerard it was a

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18 Duff, Original Genius, p. 89; see also pp. 149 and 150.
19 Gerard, Essay on Genius, quotes pp. 36 and 30; and see pp. 29 and 32.
20 Engell, Creative Imagination, p. viii; also on Duff and Gerard's interpretation of the imagination as numinous, see Thomas McFarland, Originality and Imagination (Baltimore, 1985), pp. 89, 133, 182-183.
rational phenomenon with a spiritual element. Both Duff and Gerard adopted a rational approach to the discussion of genius, their thinking being informed by natural theology, where revelation harmonised with reason to guard against superstition and selective dogma. This version of religious thinking rested ultimately on the assumption that there was such a thing as a universal human nature, furnished with knowledge, conscience and reason. Although this hypothesis was attacked within Enlightenment sceptical writings, especially those of the Scottish philosopher and writer David Hume (1711-1776), who viewed human nature as a more chaotic mix of passions, instincts and appetites, Duff and Gerard retained their belief in natural religion. Related to this, Duff’s and Gerard’s works were also influenced by the Scottish moral philosophy in which they had been educated. Part of the academic curriculum from the late medieval period, moral philosophy was a practical and theoretical discipline, which by the eighteenth century included the study the soul, and of human nature and conduct in social relations. For most teachers, it held a religious dimension, which related human interactions with the overall design of God.\(^{22}\) In the Scottish educational establishments, at the universities of Edinburgh and Glasgow, as well as at King’s and Marischal colleges in Aberdeen, the institutions where Gerard, and presumably Duff\(^{23}\) were educated, moral philosophy was a distinct discipline closely related to the teachings of the Kirk.\(^{24}\)

Rooted in these philosophies, Duff’s and Gerard’s works tackled what was an important Enlightenment debate concerning the relationship between mind and body. An age-old question, the Enlightenment period witnessed a shift in discussion of the issue: instead of being located firmly in the academic domain of theologians and philosophers, it emerged in a more public forum of debate involving members of the clergy. At stake, and widely debated through the eighteenth century, was the issue of whether man was composed of a single substance, matter, and whether matter could be endowed with mental properties.\(^{25}\) Theologians in Britain, with a few exceptions such as Joseph Priestley, believed it was important to defend the rational knowledge of the existence of

\(^{22}\) Smith, Human Sciences, p. 242.

\(^{23}\) Although no further information exists to allow this conclusion to be anything more than a surmise.

\(^{24}\) Smith, Human Sciences, pp. 243-244.

\(^{25}\) For analysis of ideas surrounding ideas of the mind in Britain in the eighteenth century, see John W. Yolton, Thinking Matter: Materialism in Eighteenth-Century Britain (Minneapolis, 1983; 1984), especially pp. 29-48, 90-106.
immaterial substances. Philosophical claims about respective powers of material and spiritual substances featured in debates between religious and political factions as well as in attacks on supposed unbelievers.26

Such a rational approach was increasingly popular with the Moderates within the Kirk, who aimed to temper faith with reason and modern learning, and with whom Gerard certainly had sympathies.27 Both Duff and Gerard were active within the Church of Scotland, the Kirk, which had adopted a fully Presbyterian system of church government in 1690.28 From the 1750s, an important division developed in Scottish Presbyterianism, with the emergence of the Moderate Party who sought a rational basis for religious belief, in opposition to the larger Evangelical or Popular Party. Politically, the Moderates became associated with the Whig government, and were seen as an agency of the State. Socially, the Moderate Party had powerful support predominately from landowners, favouring 'lukewarmness' in religion, and Anglicisation, qualities deemed necessary in order to be included within the larger British ruling class.29 Although there is no information concerning the exact nature of Duff's Presbyterianism, his works on genius suggest that he, like Gerard, was a Moderate. Theirs was a natural theological stance concerned with the physical and spiritual world. While maintaining that the knowledge of God could be derived from human reason without recourse to revelation, they also insisted on the place for spirit within the realm of matter. It was in this context that Duff and Gerard argued for the divine nature of genius.

Departing from the traditional classical tropes, the Enlightenment conception of 'genius' represents a move to internalisation. As genius became less an attendant spirit, muse or deity acting externally on a person, as it had been identified in one of its classical senses, it became instead a force possessed by and acting inside the person. Duff and Gerard differed in their views on how this internalisation of genius was manifested and to what extent it involved God's intervention. Young had left little room for doubt: 'Genius has ever been supposed to partake of something Divine.'30

27 Richard B. Sher, Church and University in the Scottish Enlightenment: The Moderate Literati of Edinburgh (Edinburgh, 1985), see pp. 128 and 162 on Duff and Gerard being Moderates; on the Moderates' philosophy see pp. 31-32, 35-36, 53-54, 166-212, 324-328.
30 Young, Conjectures, p. 27.
Duff argued the point explicitly, stating that genius was in some way the tool of Providence, bound to play its part in the divinely sanctioned order of nature: the variety with which the mental faculties were bestowed ‘is both a wise and beneficent contrivance of the Author of nature; since a diversity and a subordination of intellectual accomplishments are no less necessary to the order and good government of society, than a subordination of rank and fortune.’ Duff was more explicit than Gerard in his beliefs as to the ways in which God was involved with his Creation. For Duff, in his explicit Christianising of the concept, genius acted as a mediator between God and the rest of humanity: genius

‘throws the soul into a divine transport of admiration and amazement, which occupies and fills the mind, and at the same time inspires that solemn dread, that religious awe, which naturally results from the contemplation of the vast and wonderful. By dwelling on such subjects, the soul is elevated to a sense of its own dignity and greatness.’

Duff’s usage of an idea of divine inspiration explicitly challenged prevailing negative attitudes and distrust of certain highly spiritual elements within religion, principally surrounding the word ‘enthusiasm’. Inspiration as a concept became fashionable during the eighteenth century around the same time as attention was being focused on imagination and genius. It was an ancient idea, derived from a Platonic and Aristotelian notion that mind pervades the universe in the form of a *pneuma*, a subtle vapour. However, ever since the Civil War and into the early eighteenth century, ‘enthusiasm’ had been construed by the élite as a pejorative term, often used to characterise forms of ecstatic religious experience that were not accommodated by the Church of England. After the publication of the Earl of Shaftesbury’s *Letter Concerning Enthusiasm* (1708), which rehabilitated the term casting enthusiasm as participation in what was greater than the self, Young, by 1759, felt able to refer to ‘the

divinely-inspired enthusiast' as one of the 'Luminaries in Literature'. Duff's work also aimed to legitimate the claims to enthusiasm that he felt the genius possessed, yet he took pains to highlight the difference between its ancient and modern definitions. In his own day, Duff remarked, 'enthusiasm' was seen in a bad light, 'being conceived to proceed from an overheated and distempered imagination, is supposed to imply weakness, superstition, and madness. ENTHUSIASM, in this modern sense, is in no respect a qualification of a Poet; in the ancient sense, which implied a kind of divine INSPIRATION, or an ardour of Fancy wrought up to Transport, we not only admit, but deem it an essential one.'

Gerard's form of natural theological argument was skewed even more towards the rational, suggesting that he aimed to establish an idea of genius without inquiring into the precise origins of the source of its inspiration. Given Gerard's theological background it is likely that he considered genius in terms of God's Creation, though he chose not to state this explicitly in this work. Instead, Gerard concerned himself with some of the characteristics of human nature, and attempted to suggest how genius was derived. Here, Gerard's work reveals an important distinction that emerged during this period concerning the investigation of the concept of 'human nature'. It is likely, given his attendance at the Wise Club, of which Thomas Reid was also a member, that Gerard was an exponent of, or sympathetic to, the 'Common Sense' school of philosophy. Led by Reid, and maintained in Edinburgh by his fellow moral philosopher Dugald Stewart (1753-1828), this school of thought was developed in reaction to the atheistic scepticism of Hume, who held the concept of divinity to be beyond human proof. The 'Common Sense' school sought to recover God and the traditional values from the Humean Sceptics, and it became an important philosophy within the Scottish universities.

'Human nature' was an ambiguous term in the eighteenth century, one that conflated man's essence with the physical world. On one level, 'nature' was an ancient and medieval reference to a thing's essence. In medieval Christian culture, the 'nature' of men and women referred to their spiritual and physical nature: their divinely bestowed

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35 Young, Conjectures, p. 54. See also [Anthony Ashley Cooper, 3rd Earl of Shaftesbury], A Letter Concerning Enthusiasm, To My Lord ***** (London, 1708), especially pp. 12-13.
36 Duff, Original Genius, pp. 170-1; see also pp. 204-5, 250.
37 Ross, Scotland: History of a Nation, p. 254.
immortal soul, plus the sin that they inherited from Adam. On another level, 'nature' referred to the physical reality external to civil society. The eighteenth century witnessed a decisive shift, merging the two meanings of 'nature': increasingly, the material world, as represented by nature, was accepted as the basic source of man's essence or nature. This merging made the new natural philosophy, imbued with theological and religious concepts and values, the basis of authoritative ideas about human nature. The emphasis on nature meant that writers increasingly turned to knowledge formulated about physical nature (such as Newton's ideas on the æther) as the means by which God kept an active presence in the physical realm, in order to develop ideas about mind and human nature.38

The first part of Gerard's discussion, 'Of the Nature of Genius', should be seen in similar terms: it was a conflation of spiritual and physical worlds. For Gerard, the seeds of genius were innate and natural; in emphasising the role of human nature, Gerard sought to overturn a belief that 'all the difference between genius and no genius ... arises from education, study, adventitious causes, and acquired habits. The assertion is irreconcilable [sic] to the commonest appearances in human life'. He concluded his work by asserting it to be 'the common, though not strictly the universal, law of human nature, that genius fits the person who is endued with it, for invention in one particular art, or particular science.'39 Although in emphasising the rational element of his philosophy Gerard rarely mentioned God directly, nevertheless Gerard's theology informed his investigations implicitly.

But it appears that Duff and Gerard's re-conceptualisation of genius in natural theological terms did not have a widespread impact on their religious colleagues in the rest of Britain. The view that genius was a divinely-bestowed spirit, as opposed to something which partook of anything natural, continued to hold well after Gerard and Duff had published: in his Essay on Genius of 1782, the Revd. A. Purshouse asserted that genius was from God, and was not the result of chance or nature: 'Sure 'tis an instinct fostered in the soul; / A sp'rit divine, forth issuing at the nod / Of serious Fate, and sanction'd by a God.'40 However, in 1785, Daniel Turner, minister of an

38 Smith, Human Sciences, pp. 216-218.
Oxfordshire Baptist Church, did highlight the naturalness of genius: 'Genius is the natural Gift of God, which he bestows upon particular Persons as a Token of his providential Favour'.

Duff's and Gerard's works therefore should be seen as couched in terms of the moral and natural philosophies in which they had been educated. Genius was taken explicitly in Duff's book, and implicitly in Gerard's, as evidence of God's action within the realm of nature. As such it buttressed their religious beliefs in the hierarchy between the spiritual (represented by spirit) and the temporal (represented by matter). Underpinning their ideas was the belief that matter required the agency of a transcendent God, working via the imagination, in order for genius to be possible. By developing the notion of original genius as something that an individual could embody, so a new category of individual was being created whose authority was invested in the individual himself, not in his social standing, education or wealth. Writers promoting the idea of the genius hence rendered status, wealth and good social connections obsolete. All the genius needed to achieve acclaim was to demonstrate his originality and imagination.

But previous analyses have overlooked presence of the religious angle, which was of fundamental importance to the Enlightenment writers on genius. As Duff's work, for example, makes plain, the authority of the genius ultimately rested with God. Duff argued that the variety with which the mental accomplishments 'are bestowed, is both a wise and beneficent contrivance of the Author of nature; since a diversity and a subordination of intellectual accomplishments are no less necessary to the order and good government of society, than a subordination of rank and fortune.' This instituted a hierarchy, with genius the preserve of a tiny élite. For Duff, the attainment of discoveries in science to produce perfect examples of Art, 'the province of Genius alone,' could 'only fall within the compass of the few enlightened, penetrating and capacious minds, that seem destined by Providence for enlarging the sphere of human

41 Daniel Turner, *Devotional Poetry Vindicated, in Some Occasional Remarks on the late Dr S. Johnson's Animadversions upon that Subject in his Life of Waller. To which is added, A Short Essay on Genius* (Oxford, [1785]), pp. 12-13; emphasis Turner's.
42 See, for instance, Duff, *Original Genius*, p. 5.
43 See, for example, Marlon B. Ross, 'Authority and authenticity: scribbling authors and the genius of print in eighteenth-century England', in Woodmansee and Jaszi (eds), *Construction of Authorship*, pp. 231-257, especially pp. 251-252.
knowledge and human happiness." In the case of Duff at least, the genius discussions may be viewed as a form of hierarchy-justification.

Genius and Melancholy

Throughout these texts very little attention was given to the possible negative physical or mental effects that the exercise of being a genius might provoke in an individual. Indeed, only one of these texts, Duff’s *Critical Observations* of 1770, discussed the possible relationship between genius and physical and mental problems, suggesting the little significance attached to any potential relation between madness and genius. Duff argued that while genius, ‘is sometimes debased by an unbecoming union with Irresolution and Inconstancy of mind’, such qualities of mental conflict, ‘are none of its constant attendants.’

Despite classical associations of genius with mania, genius in the Enlightenment texts was a healthy, if unusual and unique, form of human development. Duff asserted that ‘Genius has a natural tendency to produce a chearful and sanguine temper of mind, which is its usual attendant’. Yet there was ‘another more remarkable and invariable characteristic’ that Duff portrayed as being common to men of genius: ‘a sublime, soothing, and pensive melancholy. This disposition is indeed the inseparable concomitant of true Genius.’ Arguing that just as the ‘more unfeeling part of mankind’ experienced emotional highs and lows, so too ‘the mind of a man of Genius is subjected to the same kind of vicissitudes, though he feels them more intensely’. Thus, ‘while at one time he rises in his enjoyments to a degree of rapture, at another he relapses into a pensive, but pleasing melancholy.’

Melancholy was here used as a device to suggest the divine nature of the genius, and to highlight the use of genius to mankind, acting as a kind of highly sensitive intercessor.
between man and God. 'That pensive melancholy which so remarkably characterizes exalted Genius,' Duff observed, 'appears to be produced by a sublimity of imagination united with a contemplative turn of mind, both co-operating with a tender and sympathetic sense of human misery.' In Duff's discussion, genius was therefore an individual in whom the human and divine met most strikingly: 'We may add, that Genius hath a natural tendency to produce a humane, compassionate and devotional temper of mind. These are of all others its most valuable effects.'

In employing the concept of melancholy, Duff was appealing to a highly fashionable eighteenth-century notion, one that has a complex etymology. During the seventeenth century, the original word, 'melancholia', fragmented in meaning. In their nosologies, the English physicians, Thomas Willis (1621-1675) and Thomas Sydenham (1624-1689) both separated hypochondriasis from other types of melancholia, grouping it instead with hysteria. The conditions they described as hypochondriasis and hysteria included a range of mental and physical complaints, but not madness. Hypochondriasis was subsequently variously referred to as 'the spleen', or 'the vapours', and often 'melancholy'. 'Melancholy' therefore took on a dual usage: on one hand it was associated with hypochondriasis and was thus often used to accommodate an assortment of physical complaints, including anxiety and depression; but on the other hand it was still employed to refer to the traditional disease of melancholia, which was categorised as a form of madness.

As it was developed throughout the eighteenth century however, melancholy, as a complex of character traits or a set of manners, was well regarded by many, indicative of a superior mind or social status. Its status as a modish disease was assured by the work of the well-known, fashionable Newtonian physician George Cheyne (1671-1743), whose book, The English Malady appeared in London in 1733, rapidly going through five editions. Reconceptualising the melancholic, Cheyne transformed him from a solitary figure into the epitome of a polite sociable individual, thus constructing the English malady as a disease of privilege and of the specifically English way of life.

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50 Stanley W. Jackson, Melancholia and Depression: From Hippocratic Times to Modern Times (New Haven, 1986), pp. 139-140, and pp. 116-146 for an account of melancholia in the eighteenth century; quote p. 141.
Stressing the importance of balance and regimen, Cheyne insisted that melancholy’s origins lay in pressures on the nervous system caused by modern lifestyles: the effects engendered by the increasingly affluent and mobile society, combined with such environmental factors as the English climate. By referring all nervous disorders to natural causes, Cheyne aimed to make them less stigmatising. Fine nerves were taken as a proof of good breeding, a factor that contributed to the discussion in the second half of the century of sensibility, a special faculty that not everyone was believed to possess. For Duff, such sensibility went hand in hand with genius:

‘we sympathize with the miseries of our fellow creatures in proportion to the sense we have of the miseries we ourselves are doomed to experience. From this sensibility, sympathy derives its existence; and we have shewn that such sympathy is the inseparable attendant of Genius.’

Although characterising melancholy as a disease of civilisation was not a new departure, in constructing it thus Cheyne legitimated the idea that some form of mental disorder amongst the members of sophisticated societies was normal, and positively de rigueur, marking them out from the rude and uncultivated masses. As Stanley Jackson points out, Cheyne’s work might better be interpreted, not as the prototypical study of melancholy for this era, but as a representative account of eighteenth-century meanings of hypochondriasis. Authors such as Cheyne, and most others who referred to their own spleen, melancholy or hypochondriasis during the eighteenth century, were therefore not referring to psychotic states, no matter how much they employed the terms ‘melancholy’ or even ‘madness’.

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54 Duff, Critical Observations, pp. 352-353.
56 Jackson, Melancholia, p. 140.
Cheyne's secular and naturalistic account of nervous disease was part of the wider eighteenth century interest in the relationship between body and mind, and the effect the one could have on the other. Insisting that the works of the imagination, memory, study and reflection, were based in bodily organs, Cheyne avoided encountering the discussion of lunacy, and aimed his book as a practical advice manual at the reasonable élite, the delicately sensitive, not the irrational lunatic. There is also no record of his ever having treated the insane, either personally or in an institutional setting, further suggesting that his conception of melancholy was not linked with insanity. However, while Cheyne constructed the psychological conditions as expressions of more fundamental somatic disorders, Duff later emphasised the divine, inspirational element of genius, and used melancholy as an example of the sympathy and empathy of the divine with mankind. In employing melancholy to emphasise the sympathy and sensibility of genius, Duff was not referring to pathology but was recasting melancholy in more spiritual terms. Linking genius with this fashionable complaint would in turn ensure that genius was not viewed in a negative light.

Duff, the only British Enlightenment writer to discuss the character of genius in any detail, emphasised the genius's health, and highlighted the imperative for self-control to act on the genius' passions and ambition, so as to render them 'properly regulated, and suitably encouraged'. A common conception of how to preserve health, one that had existed since classical times, was the importance of maintaining balance, both physically and mentally. In this Duff and Gerard were influenced by the classical and Christian ascetic ideals, the long traditions of medical texts which preached a dietetics of moderation, and early Christian texts, such as the writings of St Augustine, which advocated a disciplined body as the condition for spirituality. Borrowing from the Baconian tradition of the essence of creativity, both Duff and Gerard emphasised that the imagination needed to be tempered by rationalising faculties, emphasising the importance of employing other faculties such as judgment, taste, memory and sense in

57 Jacyna, 'Animal spirits', p. 156.
order to tame the potentially unruly nature of the genius. It was only when the imagination was held in tension by a balance of these faculties that true genius could be displayed. For instance, Duff, believing adverse effects could ensue from an exuberant imagination that lacked reason, indicated the need for the faculty of judgment. This faculty was, 'in all its operations, cool, attentive, and considerate. ... Thus it appears to be in every respect a proper counter balance to the RAMBLING and VOLATILE power of IMAGINATION.' For Gerard too, the faculty of judgment was essential, without the action of which 'REGULARITY of imagination, which is of the greatest importance in genius, could never be acquired'. In these Enlightenment texts the man of genius was hence portrayed as healthy and balanced.

National Scientific Genius

Yet this balance of faculties altered according to the type of intellectual activity being pursued. The bounty of God, as characterised by Duff and Gerard, was heavily fragmented; one individual might possess one of the shards of divine inspiration, but it was unlikely or impossible that all of the fragments would combine within one person. As Duff had it, universal genius was 'a very extraordinary phenomenon. Even a talent for acquiring excellence in the various branches of any one art, is very rarely bestowed; so limited in general are the faculties of the human mind.' This fragmentation highlights an important development: genius came to be attached explicitly to scientific enterprise, and not just to artistic work. Drawing on Addison, Young's conception of genius referred to the artist: his archetypal originals being the Greek lyric poet Pindar among the Ancients, and Shakespeare among the Moderns. Ever since Ancient Greece, the arts had held the highest status, yet historians should be chary of claiming the genius concept wholly for artistic figures such as Shakespeare. Jonathan Bate insists that genius was universally believed to be the sole preserve of the poet of imagination. But to suggest this denies the importance of the changes

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63 Duff, *Original Genius*, p. 9; also see pp. 9-24.
64 Gerard, *Essay on Genius*, p. 81; see also pp. 28-36 and 95-98 for the importance of memory and sense.
65 Duff, *Original Genius*, p. 149; see also Young, *Conjectures*, p. 84.
66 Young, *Conjectures*, p. 30; see Addison, *The Spectator* no. CLXI (3 September 1711).
occurring in the concept of genius, marking the emergence of different types of imagination attributable to science and the arts. Although undeniably a central figure to the development of the artistic genius idea in Britain, Shakespeare is only part of the picture.

Over the second half of the eighteenth century, 'genius' was gradually expanded to describe unique creativity in an array of different fields. Less the exclusive preserve of the artist and the poet, genius was increasingly a feature of mathematics, music (as the work of Peter Kivy has illustrated), and of natural philosophy. Departing from Young's emphasis, Duff and Gerard negotiated a space in intellectual discussion for the idea of a scientific genius, in order to account for outstanding work in fields not connected to the arts. As Duff and Gerard unravelled more of the layers of meaning of 'genius', so grew the list of fields to which this modernised concept could apply. Yet this expansion of the notion of genius entailed further definition: the artistic genius and the scientific genius were not the same creature.

Despite its diverse and complex nature, historians of eighteenth-century science have succeeded in throwing light on the extent to which natural philosophy developed during the Enlightenment. Despite the historical privileging of the Arts, natural philosophy was evidently deemed important enough by the 1760s and 1770s for its most famous proponents to earn the intellectual honour of 'genius'. In 1767, Duff asserted, 'The empire of Genius is unbounded. All the Sciences and Arts present a sphere for its exercise, and afford scope for its exertion.' Refusing to accept formulations that made imagination the essence of artistic creation only, and judgment the defining feature of scientific genius, Duff and Gerard advanced instead a general notion of imagination in

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70 Duff, *Original Genius*, p. 91.

order to render genius available to the arts and science. For both writers, different types of genius existed for different fields: as Gerard stated,

‘The ends to which Genius may be adapted, are reducible to two; the discovery of truth, and the production of beauty. The former belongs to the sciences, the latter to the arts. Genius is, then, the power of invention, either in science or in the arts, either of truth or of beauty.’

The concept of scientific genius emerged as a consequence of changing attitudes and developing ideas concerning genius, creativity and science. As scientific knowledge became an essential part of polite culture, and as science was legitimated as part of nationalist enterprise benefiting the imperial and commercial expansion of Britain, the genius category was expanded. Newton emerged as an exemplary type of scientific genius, also part of a new masculine category, and became the subject of numerous panegyrics: Duff declared ‘it would be inexcusable to omit mentioning Sir Isaac Newton, a name so revered by Mathematicians and Philosophers of every degree’, with many texts emphasising the hand of the divine in Newton’s achievements.

Yet Newton was not the only English example of scientific genius employed in these texts. That historical research has focused overwhelmingly on Newton says more about twenty-first century attitudes to, and interest in, enduring scientific legacies than it does about actual attitudes in the past. Whilst acknowledging Newton’s importance, Duff, for instance, also marked out Francis Bacon for praise:

‘Perhaps no age or nation can boast of having produced a more comprehensive and universal Genius, than that which Lord Bacon seems to have possessed. ... all his works are a proof of his having possessed that nice temperature of Imagination and Judgment, which constitute truly original Philosophic Genius.’

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Likewise Gerard averred, 'All the discoveries of Newton, except those which belong to pure mathematics, are but a few members of that body of philosophy, the outlines of which Bacon had conceived entire.' At this point in the Enlightenment, Bacon was widely revered as the major ideological figurehead of the Royal Society, and an eminent natural philosopher. In the twenty-first century, while Newton might be the most famous historical example of British scientific excellence, this, as Fara has suggested, is in large part thanks to the construction of his reputation. Initially this reputation was constructed by Newton's active involvement in fashioning his own public image as Master of the Royal Mint, and President of the Royal Society; after his death, the hawking of his image, undertaken by his eighteenth-century supporters, fulfilled nationalistic purposes in celebrating him as a scientific hero, a marketable commodity.

This usage of genius in nationalistic terms, as a label for native excellence, indicates something about the relationship between England and Scotland during the Enlightenment. As Porter noted, the boundaries between the Scottish and English Enlightenments were porous, with the authors in both countries sharing essentially the same audience: educated British culture. Though a Scot, Duff clearly felt part of a British culture. In discussing Descartes' theories of the vortices of heavenly bodies, Duff stated that these 'have, by our celebrated NEWTON, been shewn to be false'. By the time Duff and Gerard were publishing, a tradition of patriotism had taken hold, especially among poets and pamphleteers from the 1740s onwards, to oppose what was perceived to be the rampant Francophilia among British patricians. With a British élite beginning to emphasise the status of English as a language of literature in its own right, supplementing the ancient legacy of Greece and Rome, Duff and Gerard focused on celebrating British achievements. The eighteenth century also witnessed an increase in the numbers, and scale, of physical patriotic monuments. Erected to enshrine national geniuses and heroes, examples of such monuments include Viscount Cobham's temple of British worthies at Stowe, dating from c. 1734-5, and Poets' Corner in Westminster Abbey, dating from the sixteenth century, marking the beginnings of a

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77 Fara, Newton, pp. 48, 222.
78 Fara, 'Faces of genius', pp. 61, 69-76; for further on Newton's biography see Richard Westfall, Never at Rest: A Biography of Isaac Newton (Cambridge, 1980).
79 Porter, Enlightenment, pp. 243-244.
80 Duff, Original Genius, p. 114; italics mine.
tradition of burying poets and writers in close proximity.\textsuperscript{82} As Voltaire observed, the monuments at Westminster were ‘erected by a grateful nation to the greatest men who have contributed to her glory.’\textsuperscript{83}

At the same time, these texts show how ‘modern’ genius, portrayed by some writers as superior to the ancient,\textsuperscript{84} became synonymous with ‘English’ or ‘British’. Indeed, the supremacy of the ancients themselves was challenged by some authors: writers from Young onwards highlighted that the ancients were to be used as a guide only, and that English Enlightenment man should not be overawed by them. In Young’s view,

‘In polite composition, in natural, and mathematical, knowlege, we have great Originals already: Bacon, Newton, Shakespeare, Milton, have showed us, that all the winds cannot blow the British flag farther, than an Original spirit can convey the British fame; their names go round the world; and what foreign Genius strikes not as they pass?’\textsuperscript{85}

Indeed, in all the lists of archetypal geniuses drawn up by Duff and Gerard, examples of foreign genius were confined to a select few from Antiquity, such as Homer and Aristotle.\textsuperscript{86} Only Duff mentioned a relatively modern continental example of scientific genius: Descartes. Yet while acknowledging Descartes’ contributions to natural philosophy, Duff then pointed out his failings: ‘He inherited from nature a strong and vivid Imagination; but the too great predominance and indulgence of this very faculty, was the cause of all those errors in Philosophy into which he was betrayed.’\textsuperscript{87} No attention in these texts was given to further modern French or other continental individuals, suggesting that the authors judged that no others matched the British examples.


\textsuperscript{84} See Rev. Robert Prichard, fellow of New College, Oxford, \textit{A Treatise on Ancient and Modern Genius} (London, 1793), especially pp. 3-4 where he declares his intention to prove pre-eminence of the modern over the ancient in poetry.

\textsuperscript{85} Young, \textit{Conjectures}, pp. 25-26, quote p. 76, Young’s emphasis.


\textsuperscript{87} Duff, \textit{Original Genius}, p. 114.
Duff and Gerard employed ‘genius’ as a means to emphasise the relationship between spirit and matter, between divine and human. Their works also represent patriotic attempts to situate Shakespeare, Newton and others, into the tradition of English history, attributing some credit to them as well as indicating the workings of God through them. From the 1760s, writers on genius in Britain constructed a seamless link between the classical period of Ancient Greece, and the birth in England, beginning with Shakespeare in the Renaissance period, of original English men. Increasingly, the genius was cast as a national icon, but it was a fragmented concept too. The extension of the use of the imagination allowed these writers to expand the category to incorporate previously excluded fields, such as natural philosophy. Thus by the first few decades of the nineteenth century, scientific genius, as a new category, had become firmly established, as the division between arts and sciences became more marked. The scientific genius, searching for truth, power and immortality emerged.

**Scientific Transcendence and Humphry Davy**

The works of Duff and Gerard, both advocating the existence of a scientific no less than an artistic genius, indicate the beginnings of change in the status of the arts relative to other fields of human endeavour, such as natural philosophy. One individual who championed the scientific (specifically the chemical) genius over the artistic was Humphry Davy. Both Enlightenment and Romantic influences are evident within Davy's writings. These threads emerge as this section examines how the scientific genius of the Enlightenment came to be characterised by Davy as an individual, and eventually as a Romantic solitary.

**Collapsing Hierarchies**

Initially and in his early life, Davy had been influenced by the English ‘thinking matter’ philosophical tradition of John Locke, via David Hartley, the chemist Joseph Priestley (1733-1804) and the physician Thomas Beddoes (1760-1808) to whom Davy was apprenticed at the Pneumatic Institute in Bristol. Locke had aroused debate by his assertion that he saw no inconsistency in the belief that God might have endowed

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88 Fara, ‘Faces of genius’, p. 78.
certain types of matter with the capacity to think. Similarly, during the 1770s, Priestley had matured his scientific, theological and philosophical arguments that proposed that matter possessed inherent powers, such as those of repulsion and attraction, publishing these ideas in his controversial *Disquisitions Relating to Matter and Spirit* of 1777. Both Priestley and Beddoes were controversial political radicals who upheld a democratic, non-élite approach to both politics and science. In different ways, both Priestley and Beddoes were opposed to hierarchies, whether political or religious. The 1790s, for instance, witnessed Beddoes’ vocal attacks on the Established Church (Beddoes had no religious sensibility), insisting its authoritarian teaching was detrimental both to the individual and the community, viewing hierarchies as man-made structures that seemed to him simply to reinforce dogma, rather than allowing each individual to experience their own version of religion.

However, these ideas, denying the action of a transcendent vivifying force in matter, proved highly controversial: the Scottish Common Sense philosophers, notably Thomas Reid in the 1770s, took aim at Priestley’s atheistic materialism, materialism which later, in the 1790s, the avowedly conservative thinker Edmund Burke believed smacked of French subversion. Both Priestley and Beddoes, advocating materialism and democracy that the English Government took to be allied to subversive Jacobinism, were seen as

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sources of sedition. For Priestley however this was not atheism: he held to the view that the organisation of the natural world was proof of the existence of a caring deity.

Influenced by these philosophers, Davy argued a vitalist case that it was impious of the immaterialists to assert that God was unable to make matter think, since claiming such limited his power. Ever since the role of oxygen had been discovered in respiration, chemistry, Davy believed, was able to demonstrate the knowledge of the phenomena of living matter. Typical of the Enlightenment period – and adhering to the epistemological principles of Locke and Priestley – Beddoes, and through him Davy, regarded the autonomy of the individual’s sensory experience as of prime importance.

In tune with this individualist mode of thought, Davy’s aim in his materialist pneumatics, his auto-experimentation with gases, famously with nitrous oxide while under Beddoes’ tutelage at Bristol, was to demonstrate the corporeality of the mind. In collapsing the categories of matter and spirit in this way, categories that were clear-cut in orthodox, dualist Enlightenment thought, Davy was following a trend within English radical science, following ideas developed by Erasmus Darwin and the Unitarian circle around Priestley, to a form of the concept of the ‘active universe’, a single unifying principle which underpinned all existence. But the proponents of this activity were denounced as deluded enthusiasts, a term resurrected in its negative, seventeenth-century sense to refer to those religious ecstacies who sought private truths by exercising no control over their overactive imaginations. It is likely that Davy’s move in 1801 to the newly opened Royal Institution, and the safe, fashionable,
aristocratic circles in London, was a bid to save his reputation from the stain of radicalism.

Despite being influenced by the enlightened democratic public culture of science championed by Priestley and Beddoes, Davy’s subsequent career shows how much he departed from the beliefs of his earlier life. After his removal to London in 1801, Davy’s philosophy became more elitist: Davy’s strategy for constructing a perception of his own individual supremacy in chemistry consisted in maintaining control over the scientific processes he demonstrated to the audiences that crowded the Royal Institution. By keeping the audience passive, and employing them as another piece of the whole apparatus, Davy, as the sole natural philosopher-in-charge, was able to bolster his own authority, both over nature, and over the audience as their interpreter of nature.

Davy’s Consolations, or Genius within the Spiritual Hierarchy

Disavowing Beddoes’ democratisation and materialism, Davy formed an explicitly religious conception of creation, one with a definite hierarchy of spiritual beings. Davy’s subsequent anti-materialism aligns him with the Enlightenment authors on genius in the sense that he reinstated the dualist matter/spirit hierarchy that Priestley and Beddoes had shunned. The religious dimension of Davy’s philosophy is paramount in facilitating understanding of his form of vitalist philosophy. Davy was committed to the view that the mere organisation of matter could not give rise to life, but instead that the organised living body was the medium for a more fundamental, hidden power. It was this kind of vitalism that Davy employed to underwrite the existing social order, identifying the vital power in matter with the God of the Anglicans.

Davy eventually publicly delineated his dualist ideas of matter and spirit, and indicated his views on genius and its role within his field of scholarly inquiry, chemistry, in a

100 Golinski, Science as Public Culture, pp. 156, 158, 234.
101 David Gooding, Experiment and the Making of Meaning: Human Agency in Scientific Observation and Experiment (Dordrecht, 1990), especially pp. 36-47; for other discussions concerning the construction of scientific authority, see David Gooding, Trevor Pinch and Simon Schaffer (eds), The Uses of Experiment: Studies in the Natural Sciences (Cambridge, 1989); Schaffer, ‘Self evidence’, especially pp. 88-89.
102 Lawrence, ‘The power and the glory’, p. 223.
philosophical work, one he deemed 'my legacy to the philosophical world', entitled *Consolations in Travel*. The culmination of a lifetime’s work, it pulled together different strands of his thinking, incorporating his considerations of philosophy, the nature of genius and immortality, as well as the role of the intellect and imagination. These were issues with which Davy had filled his notebooks during the period from 1798 to 1800. As Davy wrote to his wife, its aim was ‘to display and vindicate the instinct or feeling of religion. No philosopher, I am sure, will quarrel with it, and no Christian ought to quarrel with it.’ Published posthumously in 1830, it took the form of a series of six dialogues that tried to reconcile disease, death and providence, and present what had become by the end of his life his anti-materialist worldview. American editions appeared, and it was translated into Spanish, French, Swedish and German, continuing to sell past the middle of the nineteenth century. Despite this, there is little evidence of its being read widely.

The book opens with a discussion amid the ruins of the Colosseum in Rome, where the narrator, Philalethes, meets two friends: Ambrosio, a learned, liberal Catholic, and Onuphrio, a liberal sceptic. The ruined building prompts discussion among the three friends of the transiency of human works. After Ambrosio and Onuphrio depart, Philalethes experiences a vision, wherein a voice which he calls that of the ‘Genius’ presents a progressive view of the history of mankind, from the birth of time, and savage man, through the growth of civilisation. The vision contained the message, uttered by the Genius, that progress results from the work of men of genius:

‘To whatever part of the vision of modern times you cast your eyes you will find marks of superiority and improvement, and I wish to impress upon you the

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conviction, that the results of intellectual labour, or of scientific genius, are permanent and incapable of being lost.'

Key to Davy’s philosophy was his faith in the animating properties of a divine element, relying on natural theological arguments to present his personal belief in the immortality of the spiritual aspect of mankind. He was believed to be a conforming Anglican, though it appears his religion was strongly personal, including strong Catholic sympathies, judging from his evident delight at the Catholic Emancipation in 1829. By the time of writing his *Consolations*, Davy had rejected pure materialist notions that all that existed was matter and that all life was simply the outcome of different organisational combinations of that matter. This anti-materialism is evident in the first Dialogue of the *Consolations*, as he drew in the concept of spiritual natures that used material bodies, but bodies that were superimposed onto the matter, and not the product of the organisation of the matter itself. The Genius went on to illustrate one of Davy’s central messages, how living forms perpetuated across the ages, how living beings wore out and outgrew their earthly bodies, died, and then migrated to other planets to inhabit more ethereal bodies, and to live higher, more intellectual and more spiritual lives:

‘Spiritual natures are eternal and infinitely varied as the forms of matter. ... The quantity, or the number of spiritual essences, like the quantity or number of the atoms of the material world, are always the same; but their arrangements, like those of the materials which they are destined to guide or govern, are infinitely diversified; they are, in fact, parts more or less inferior of the infinite mind, and in the planetary systems, to one of which this globe you inhabit belongs, are in a state of probation, continually aiming at, and generally rising to a higher state of existence.’

Thus Davy, in complete contrast to the democratic sympathies of his early youth, developed a progressive hierarchical system of existence whereby spirits were judged in terms of how close they were to the source of all intelligence. Within this framework,

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109 Davy, *Consolations*, pp. 33-34.
110 See a letter from Davy to his wife Jane, Lady Davy (dated Rome, 1 March 1829): ‘I rejoice that the Catholic question is carried’, in John Davy (ed.), *Fragmentary Remains*, p. 311.
examples of human genius were lauded as spirits that had pushed closer to the divine mind than the rest of humanity. Spirit itself used the material body it was given in order to pursue its aims; in Davy’s conception there was no power inherent in the matter itself. Thus the Genius continued,

‘I could show you the monad or spirit, which with the organs of Newton displayed an intelligence almost above humanity, now in a higher and better state of planetary existence drinking intellectual light from a purer source and approaching nearer to the infinite and divine Mind. But prepare your mind and you shall at least catch a glimpse of those states, which the highest intellectual beings that have belonged to the earth enjoy after death, in their transition to new and more exalted natures.’

Davy’s version of spiritual hierarchy was governed by an intellectual elitism, where the best results would only be achieved by the superior minds. God was the root of the intellect, but these spiritual intellectual forms existed in a hierarchy and as such were capable of focusing on God to differing degrees:

‘We feel his laws are those of external justice and that they govern all things from the most glorious intellectual natures belonging to the sun and fixed stars to the meanest spark of life animating an atom crawling in the dust of your earth.’

Superiority, the Genius explained, was conferred on those beings that had ‘used, modified and applied the material world in a manner analogous to man; but with far superior powers they have gained superior results.’ As Davy constructed it, the spirit could only pass to a higher stage of existence when it had employed its intellectual power to greatest effect: ‘its future destinies depend upon the manner in which it has been exercised and exalted.’ Misapplication of the power, in the form of vague curiosity, restless ambition, vainglory and pride, degraded the being and demoted it to a Purgatory-like state: thus ‘it sinks in the scale of existence and still belongs to the earth or an inferior system, till its errors are corrected by painful discipline.’

112 Davy, Consolations, pp. 43-44.
113 Davy, Consolations, pp. 59, 49, 57.
Yet Davy had fixed views about what types of knowledge permitted the optimal expression of the highest form of human intellectual life. One way in which Davy's "Consolations" may be read is in terms of an attempt to establish the pre-eminence of chemistry among the disciplines. Davy's work marks the ongoing shift from genius being viewed as largely the preserve of the arts, to being transformed in some circles into something that was foremost a feature of science, in an age when 'science' as a discipline had not been fully defined. Where Duff and Gerard had begun to challenge the traditional attitude to the relative status of the arts to natural philosophy, they nevertheless retained a measure of superiority for the artistic genius. Duff, for instance, had argued that,

'POETRY, of all the liberal Arts, affords the most extensive scope for the display of a Genius truly Original. In Philosophy, the empire of Imagination, and consequently of Genius, is in some degree necessarily restricted; in Poetry, it is altogether absolute and unconfined.'\(^{114}\)

But for Davy, even as early as 1795, when as a youth he had written his poetic 'The Sons of Genius', later published in Robert Southey's *Annual Anthology* in 1799, the pre-eminence of the poets was challenged by those whose life was dedicated to scanning 'the laws of Nature, to explore / The tranquil reign of mild Philosophy; / Or on Newtonian wings sublime to soar / Through the bright regions of the starry sky.'\(^{115}\)

However, the category of genius, (as was mentioned in the Introduction above), had been firmly denied natural philosophers by Kant. In his Third *Kritik* (1790), Kant, assuming originality to be the bastion of genius, had argued that products of genius were inimitable by other mortals. Thus he insisted that because scientific experiments, the products by which natural philosophers were commonly judged, were replicable and reasonable, this in itself meant that they were not the products of genius.\(^{116}\) Such a view influenced Coleridge, a friend of Davy's, who employed Kantian categories of the mind to argue that experimental science was useful but ultimately superficial, based as it was

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\(^{116}\) Simon Schaffer, "Genius in Romantic natural philosophy", in Cunningham and Jardine (eds), *Romanticism and the Sciences*, pp. 82-98: pp. 84, 88, 89.
on the understanding, which sought to dissect nature, rather than on the higher faculty of pure reason, which sought ideal unification. Davy, however, challenged the view of pre-eminence of artistic genius by making any claims to genius dependent upon the products created possessing utility.

For Davy then, superiority was intimately connected with utility, something that was the preserve of the scientific investigator: when

> the love of intellectual power has been exercised on its noblest objects, in discovering and in contemplating the properties of created forms and in applying them to useful and benevolent purposes, ... the destinies of the sentient principle are of a nobler kind, it rises to a higher planetary world.

In “The Sons of Genius”, Davy had portrayed the scientific genius as one above earthly concerns: inspired by genius, ‘the sons of genius rise / Above all earthly thoughts, all vulgar care; / Wealth, power, and grandeur, they alike despise,— / Enraptured by the good, the great, the fair.’ Yet by the time he wrote the Consolations at the end of his life, Davy had come to view pragmatism and arguments of utility necessary in order to convince the rest of the world that chemistry, and the genius of that science, were worthy of honour.

Davy had argued for the supremacy of chemistry over other disciplines as early as 1802. In a Royal Institution lecture Davy asserted that it was chemistry, undertaken by philosophers having active and creative minds, which explained the active powers of the world and uncovered the hidden operations of nature. Davy asserted that this knowledge was of two-fold importance to humanity since it was both practical, in allowing men to actively improve their lot, and moral, since the active powers were the basis of life and thought. It was chemistry above all other disciplines, that could demonstrate to men this system of knowledge ‘which relates so intimately to their own physical and moral constitution’. Davy thus stamped on the claims artistic geniuses posited for their pre-eminence by asserting that the arts such as poetry were not useful.

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118 Davy, Consolations, pp. 57-58.
121 Lawrence, ‘The power and the glory’, p. 220.
While Davy insisted that 'There is no absolute utility in poetry', he admitted that 'it gives pleasure, refines and exalts the mind.' But this was not enough: he asserted that 'Philosophic pursuits have likewise a noble and independent use of this kind; and there is a double reason offered for pursuing them, for, while in their sublime speculations they reach to the heavens, in their application they belong to the earth; whilst they exalt the intellect, they provide food for our common wants and likewise minister to our noblest appetites and most exalted views belonging to our nature.'

Davy thus welded together Romantic and utilitarian concerns in his philosophy, eager to portray science as both beautiful and useful. As he had argued in 1802, the study of nature, performed correctly, 'must be always more or less connected with the love of the beautiful and sublime'. When guided by 'infinite wisdom', the chemical philosopher was able to see 'good in all the diversified forms of the external world' without being prejudiced or superstitious. This, Davy believed, was the proper basis for the results of science to be 'admired and used'.

But importantly for Davy, chemistry also offered, besides the advantages of utility, the rewards of immortality. Using eighteenth-century ideas of the plurality of worlds and the great chain of being, Davy argued that following the correct process of natural philosophy was the only way in which spiritual natures would progress to the higher, elevated stages of existence, and ultimately be joined with the infinite Intelligence. As the monad, or spiritual essence of a being passed into stages of existence, the only 'sentiment or passion' that it carried with it was 'the love of knowledge or of intellectual power which is in fact in its ultimate and most perfect development the love of infinite wisdom and unbounded power, or the love of God.' The destiny of this spirit was determined by how the being had used this passion during that stage of existence. In Davy's view, the key to elevation involved exercising the 'love of intellectual power' on the 'noblest objects', in order to avoid sinking in the stages of existence. It was raised to a 'higher planetary world' only through discovering and contemplating 'the

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122 Davy, Consolations, p. 243.
124 Humphry Davy, A Discourse Introductory to a Course of Lectures on Chemistry (1802), in Davy, Collected Works, II, pp. 311-326: p. 325.
125 Davy, Consolations, pp. 244-245.
126 Robert Siegfried, 'Davy's 'intellectual delight' and his lectures at the Royal Institution', in Forgan (ed.), Sons of Genius, pp. 177-199: p. 195.
properties of created forms and in applying them to useful and benevolent purposes,' and so 'developing and admiring the laws of the eternal Intelligence'. Ultimately each immortal spirit would be conjoined with God, the infinite intelligence, as each such spirit was a tiny part of a massive and perfected whole. Thus the Genius said, 'We know all things begin from and end in his everlasting essence, the cause of causes, the power of powers.' Immortality was evidently a life-long concern, these sentiments having echoes in his poetry of 1795, in which he had described some individuals of genius who 'in oblivious silence pass away, / And leave no vestige of their lives behind'. The 'living sons of genius' however 'stand sublime, / The immortal children of another age.'

Davy devoted his fourth Dialogue, set in Austria, to the question of immortality, the quest for which underpinned his Consolations, and it is here that his anti-materialism is particularly apparent. Davy divided spirit from matter explicitly and endowed spirit with immortality; this spirit was the essence of the genius. From the mouth of the truth-lover, Philalethes, Davy discussed the 'thirst of immortality', and argued for the immortality of the soul: 'The desire of glory, of honour, of immortal fame and of constant knowledge, so usual in young persons of well-constituted minds', were, Davy insisted, 'symptoms of the infinite and progressive nature of intellect – hopes, which as they cannot be gratified here, belong to a frame of mind suited to a nobler state of existence.' But this immortality was placed very firmly by Davy within the realm of the spiritual, rather than the material:

'With its present organization, the intellect of man is naturally limited and imperfect; but, this depends upon material machinery; and in a higher organized form, it may be imagined to possess infinitely higher powers. Were man to be immortal with his present corporeal frame, this immortality would only belong to the machinery; and with respect to the acquisitions of mind, he would virtually die every two or three hundred years,—that is to say, a certain quantity of ideas only could be remembered.'

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127 Davy, Consolations, pp. 56-58.
128 Davy, Consolations, p. 59.
130 Davy, Consolations, pp. 220, 221, 213.
Subsequently, in the fifth Dialogue, subtitled ‘The Chemical Philosopher’, Davy made plain his view that chemistry was the discipline in which immortality was possible. Through the character of the Unknown, Davy continued: ‘To me there never has been a higher source of honour or distinction than that connected with advances in Science.’ It was science that offered distinctions, and ‘the glory resulting from them is permanent’. Specifically, ‘chemical pursuits’ that Davy insisted ‘exalt the understanding’, did not ‘depress the imagination or weaken genuine feeling’. More than this, in Davy’s view, chemistry promoted and suited best the progressive nature of the human intellect, and was the most appropriate discipline, because of its demonstration of truths, in which the human intellect ‘seems as it were to demonstrate its birthright to immortality.’ Arguing that the chemical philosopher should ‘be humble-minded, you will readily allow, and a diligent searcher after truth,’ Davy also insisted that he should be ‘neither diverted from this great object by the love of transient glory or temporary popularity, looking rather to the opinion of ages, than to that of a day, and seeking to be remembered’ and named rather in the epochas [sic] of historians than in the columns of newspaper writers or journalists. 

What emerged in Davy’s characterisation of the chemical genius reveals further the fragmentation of the genius concept, as qualities increasingly celebrated in the man of science differed from those of the artist. Casting the chemical genius as one who was capable of effecting progress in science, Davy briefly sketched the kinds of qualities a chemist should possess. These included ‘patience, industry, and neatness in manipulation’, as well as ‘accuracy and minuteness in observing and registering the phenomena which occur’. But to achieve discoveries, the chemical philosopher was required to understand and develop the ‘general laws of the science’, at which point, he should display an imagination ‘active and brilliant in seeking analogies; yet entirely under the influence of the judgment in applying them’. Underpinning the Consolations, as well as his lectures, is thus a firm belief in the providential nature of design, coupled with a moral obligation on using the intellect correctly to discover the nature and unity of the design. Within Davy’s work therefore, there was an

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131 Davy, Consolations, pp. 225, 226, 245.
132 Davy, Consolations, pp. 246, 254.
133 Davy, Consolations, pp. 251, 252-253.
134 Siegfried, ‘Davy’s ‘intellectual delight”, pp. 182ff, 196-197.
The intertwining of the qualities requisite in a chemist and those Davy deemed essential in his construction of the chemical genius. To the ordinary skills of scientific inquiry – patience, accuracy and attention to detail – Davy appended a set of higher intellectual processes that he viewed as features of genius, most notably that of the imagination, reined in by judgment (as in Duff and Gerard's prescriptions). In Davy's view, genius effected progress in chemistry when the higher intellectual faculties supplemented the solid groundwork of observation and experiment. It was this wider knowledge of experimental philosophy that would, he suggested, incline the man accustomed to 'the pursuit of experimental research' to 'reason with deeper reverence concerning beings possessing life'. In perceiving in the phenomena of the universe 'the designs of a perfect intelligence,' Davy argued that the experimental researcher would be 'averse to the turbulence and passion of hasty innovations, and will uniformly appear as the friend of tranquillity and order.' This wider knowledge would thus incline men to prefer harmony and stability in the natural and social worlds.\(^{135}\)

**Solitude and Genius**

Crucial to Davy's individualist philosophy was the idea that the lone genius was capable of effecting progress in science. From his earliest poetry, Davy had characterised genius as a solitary individual. In his 'Sons of Genius', Davy wrote on 'aspiring genius' who 'loves the silent solitary hours'.\(^{136}\) His later public statements find their echoes in his private notebooks: in one such private fragment he couched his own personal attributes in similar terms, referring to his 'solitary enthusiasm', that 'constituted my independence' and which 'was never lost'.\(^{137}\)

Thus Davy characterised the chemical philosopher as a solitary engaged on a personal spiritual journey through an individual devotion to chemistry and ultimately, by


progressing through the spiritual hierarchy, to God. Of the chemical philosopher, Davy wrote,

'his mind should always be awake to devotional feeling, and in contemplating the variety and the beauty of the external world, and developing its scientific wonders, he will always refer to that infinite wisdom, through whose beneficence he is permitted to enjoy knowledge; and, in becoming wiser, he will become better, he will rise at once in the scale of intellectual and moral existence, his increased sagacity will be subservient to a more exalted faith, and in proportion as the veil becomes thinner through which he sees the causes of things, he will admire more the brightness of divine light by which they are rendered visible.'\(^{138}\)

This was essentially self-promotion on Davy's part. His career of chemical investigations had not been based on a collective enterprise of a group of natural philosophers, but he had nevertheless been afforded a substantial degree of help from the Royal Institution where he researched and lectured from 1801. He had always portrayed himself as the solitary individual who alone possessed authority. As if justifying his swift rise to eminence from lowly beginnings, Davy stated, 'in general, it is neither amongst sovereigns nor the higher classes of society, that the great improvers or benefactors of mankind are to be found.'\(^ {139}\) Lawrence's reading of Davy's work as a bid to characterise the man of genius as the man of power\(^ {140}\) is helpful in analysing the Consolations, but it is only through contextualising the Consolations in the light of his professional career over the 1820s that Davy's words take on deeper significance. During this period, Davy had served as the President of the Royal Society, until his suffering a stroke in 1826 precipitated his resignation in 1827. Failing to reconcile the warring factions that had become a persistent feature of the Society, Davy was widely castigated as a failed leader, and saw himself, as David Knight has described, as a kind of martyr to science.\(^ {141}\) This is the context in which the Consolations should be viewed: it represents Davy's attempt to claw back credibility and acclaim for himself,

\(^{138}\) Davy, Consolations, pp. 254-255.
\(^{139}\) Davy, Consolations, p. 35.
\(^{140}\) Lawrence, 'The power and the glory', p. 223.
providing him with a vehicle through which he could describe the science of chemistry, particularly its use to humanity, in terms that best described his achievements.

Conclusion

The Enlightenment writers of the mid-eighteenth century onwards, aimed to pluck 'genius' out of its nebulous, ill-defined state, to demystify and internalise it, using the rational religion approach. Just as an enlightenment vision of man as a specialist in a particular field was developed, Young, Duff and Gerard all emphasised the specificity of genius as an internal quality, transforming the idea of genius from a general and external spiritual essence. In their constructions, the genius became an adept in a narrower frame of reference, rather than a master of many types of knowledge. While fundamentally healthy, in Duff's view, potential attendant disadvantages, specifically melancholy, were rendered fashionable and legitimate, particularly in the light of Cheyne's work, and as a culture of sensibility developed. The Enlightenment genius so defined was an honoured construction, and its exemplars were discussed both in patriotic and nationalistic terms as sources of national pride: the modern genius became an English icon.

Duff's and Gerard's views should be seen in the context of their natural theological beliefs. Shunning the ideas of the materialists, and Humean scepticism, Duff's and Gerard's works may be seen as products of the Scottish Common Sense philosophical thinking. In their view, the Deity was not only immanent as spirit within matter, but He was also transcendent, demonstrating their belief in a spiritual hierarchy. Priestley and Beddoes however collapsed this hierarchy, arguing along Lockean lines that matter could indeed be endowed with spirit. By denying the idea that the mechanism of inspiration was a transcendent God, Priestley and Beddoes were subjected to sometimes violent criticism, as their controversial ideas were seen by writers such as Burke as smacking of French atheism at a time in British history when radicals, sympathetic to the French revolutionary cause, were viewed as particularly dangerous.

Initially influenced by these radical ideas, Davy over the course of his career reverted to a non-democratic, highly individualistic idea of genius. For Davy, the genius was an
individual who stood as a key player in a transcendental spiritual hierarchy, a hierarchy based on an idea that each soul has the ability to perfect itself. It is this belief in a spiritual hierarchy for genius that links him as much with the Enlightenment writers as his statements relating to solitude link him with the British Romantic thinkers. Following the rejection of what appeared to be a form of science that was radical and subversive, Davy attempted to institutionalise and legitimate the science of chemistry within society and existing natural philosophy, seeking to cleanse it from the stigma of the radicalism of the late-eighteenth-century scientists. In so doing, he established the notion that genius within science was not only possible, but that scientific genius was the epitome of genius, in its fulfilment of the demands of utility. Seeking immortality for the genius, specifically the genius within chemistry, Davy turned cultural norms on their head, providing a safe, conservative and deeply religious philosophical basis for the supremacy of science, especially chemical science, above the arts. In doing so, Davy linked natural theology, similar to that espoused by the English Enlightenment thinkers, and chemistry together; in this conservative reformulation, chemistry and natural theology were to be the basis of a social order in which progress would not disrupt the existing hierarchy. Robert Boyle and Priestley had already combined natural theology with natural philosophy, but it was Davy’s motivation for doing so that marked him out from his predecessors.

Together, the examples of Duff, Gerard and Davy demonstrate that right up to the late 1820s, ‘genius’ was an idea that could be invoked to characterise a manner of working that bolstered a notion of hierarchies, both in the social and the spiritual worlds. Converted from a classical conception of an attendant spirit, these writers, to different degrees, had Christianised the concept, and enlarged it to accommodate other forms of human enterprise, particularly science. Retaining meanings that evoked otherworldly properties, ‘genius’ was used to describe either the medium through which man communicated with the Christian God, or the immortal part of man that progressed through the spheres towards its final rest in its Creator. The genius was hence firmly located in a natural theological and vitalistic philosophy, where matter was empowered by a divine Christian element, and where some men rose to a greatness that distinguished them from the rest of humanity.

Golinski, Science as Public Culture, pp. 196, 197.
CHAPTER 2: POLITICISATION OF GENIUS

Introduction

While Davy argued for the pre-eminence of the individual scientific genius, other writers, during what has become known as the Romantic period, developed conceptions of genius in different ways. This chapter charts the rise within Britain of the concept of genius as a political entity, and how it became associated with radicalism. Two men who contributed most to this development were Samuel Taylor Coleridge (1772-1834), and his quondam protégé, the prolific essayist William Hazlitt (1778-1830).

Concentrating on key published works by Coleridge, this chapter examines his important contribution to the idea of the Romantic artistic genius, his *Biographia Literaria* of 1817, which contained many of the ideas he had been developing privately with his correspondents. This discussion also makes use of the array of Hazlitt’s published essays, which were imbued with his radical sympathies, and in which he discussed his hopes for the man of genius. The chapter concludes by examining *On the Constitution of Church and State* (1829), Coleridge’s last major work.

Radicalism and Politicisation

The idea of genius as a political entity first emerged in a context of radicalism in the late 1790s. 1789, the year of the French Revolution, had a profound impact on the young tyros of Coleridge’s generation. Whilst at university in Cambridge in the early 1790s, Coleridge had become attracted to many of the ideas of the English Jacobins, a label for a loose association of radical preachers, lecturers and literary intellectuals who were

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1 As Marilyn Butler points out, it was not until the 1860s that ‘the Romantics’ became an accepted collective term for Coleridge, Byron, Keats, Shelley and Blake. It was only in the twentieth century that analytical discussion of the abstraction ‘Romanticism’ emerged, as a recognised term for theories of art and the imagination; Marilyn Butler, *Romantics, Rebels and Reactionaries: English Literature and its Background, 1760-1830* (Oxford, 1981; 1990), p. 1.

inspired by the idealism of the early Revolution in France. Being particularly drawn to the egalitarian ideas espoused by the French revolutionaries, it was these ideas that came to have a marked influence on the development of the concept of genius in early nineteenth-century Britain. Despite the marked political reaction from 1792 in England towards a political conservatism, men such as Coleridge continued to investigate the possibilities of the radical ideas, particularly those of freedom and liberty, which the revolution seemed to unleash. While Burke composed his sharply worded prose which railed against the evils of the revolution, others in England adopted the opposite view; as Coleridge’s fellow Lake Poet William Wordsworth (1770-1850) famously wrote, ‘Bliss was it in that dawn to be alive, / But to be young was very heaven!’

It was whilst Coleridge was in this radical phase, championing the cause of civil liberty and religious freedom, that Hazlitt first encountered him. Hearing Coleridge preach at a Unitarian church in Shrewsbury, on 14 January 1798, Hazlitt, then a young man of nineteen, later remembered it as a significant date in his life. Writing of the experience in 1823 in one of his most famous essays, ‘My First Acquaintance with Poets’, Hazlitt described how hearing Coleridge had inspired him. ‘I had no notion’, he wrote, ‘that I should ever be able to express my admiration to others in motley imagery or quaint allusion, till the light of his genius shone into my soul’. The substance of Coleridge’s sermon affected Hazlitt profoundly. Inspired by the French Revolution, and preaching a doctrine of freedom that he rooted in the Gospel, Coleridge gave a sermon on peace and war, church and state: not their alliance, but their separation, arguing from the premise that the spirit of the world and that of Christianity were opposed to each other.

Hearing Coleridge’s words marked a transformation in Hazlitt, and the beginnings of him connecting the idea of genius with politics. Hazlitt was overawed by Coleridge’s abilities and ideas; the combination of ‘A poet and a philosopher getting up into a

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4 Butler, Romantics, p. 15.
Unitarian pulpit to preach the Gospel, was a romance in these degenerate days, a sort of revival of the primitive spirit of Christianity, which was not to be resisted. But Hazlitt possessed no religious faith. From 1793, Hazlitt had attended the New College in Hackney, which had the reputation of a breeding ground for sedition and heresy. Whilst there, he became fascinated with the politics of the time, and indulged his love for the theatre. As Hazlitt’s most recent biographer, A.C. Grayling, has remarked, ‘Politics, theatre, and especially philosophy, between them killed the last vestiges of religious faith in Hazlitt.’ It was thus more from a philosophical than a Christian view of agape, brotherly love, inspired by the French revolution, and his reading of the radical Godwin, that Hazlitt listened to Coleridge in 1798. He had a youthful hope in the possibility of altruistic sympathy, of ‘Kind feelings and generous actions’ towards others. But, as he later wrote, ‘the hope, that such feelings and such actions might become universal, rose and set with the French revolution.’

As Hazlitt remarked on hearing Coleridge preach, it was philosophy, not religion, that was the meeting point between the two men, but it was also Coleridge as a combination of both philosopher and poet that appealed to him. Hazlitt held the imagination to be essential to philosophical understanding. Thus Hazlitt wrote, ‘Coleridge in truth met me half-way on the ground of philosophy, or I should not have been won over to his imaginative creed.’ Remarking on his feelings after hearing Coleridge’s sermon, Hazlitt observed that,

‘As for myself, I could not have been more delighted if I had heard the music of the spheres. Poetry and Philosophy had met together, Truth and Genius had embraced, under the eye and with the sanction of Religion. This was even beyond my hopes. I returned home well satisfied.’

Yet only weeks later, having inspired the young Hazlitt with the thoughts that he was to espouse his whole life, of a philosophical and imaginative genius capable of inspiring

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11 Grayling, Hazlitt, p. 53.
the kind of agape from which civil and religious liberties could stem, something happened to make Coleridge change the course of his theorising. Disillusioned by the brutal French imperial invasion of Switzerland in the spring of 1798, Coleridge wrote ‘France: an Ode’, which was published in the liberal, anti-government paper, the Morning Post. In it he openly regretted the aggressive behaviour of France, and found the cause of Freedom marred by the country’s actions. As Coleridge characterised it, France, the country that ‘mockest Heaven, adulterous, blind, / And patriot only in pernicious toils,’ had insulted ‘the shrine of Liberty with spoils / From freemen torn’. Whilst unable to bring himself to support Prime Minister Pitt, or the war against France, this event moved Coleridge’s public journalism, dealing with constitutional matters and foreign affairs, and his private thoughts further from his previous radical Jacobin sympathies, towards a closer support of the British establishment. As he later had it, he became a ‘vehemant anti-gallican, and still more intensely an anti-jacobin’. Coleridge and his editor on the Morning Post, Daniel Stuart, had both hoped that the new system of government instituted by Napoleon, who had effected a coup d’état in the previous November, would be a less aggressive form, promoting peace.

Over the following decade, as his confidence in his poetical abilities faltered, he turned increasingly to laudanum, a preparation he later admitted he had looked upon as his ‘Guardian Genius’. Coleridge began to write more and more patriotic journalism, and less and less poetry. Following Stuart from the Morning Post to the Courier, an evening paper, Coleridge contributed nearly one hundred and fifty articles both as staff writer and as freelance over the next fourteen years from 1804 to 1818. Altering his political ideas was an important move for Coleridge’s financial survival. Relying on the

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14 Holmes, Early Visions, p. 203.
20 Holmes, Early Visions, p. 175.
money he earned from his pen, his writing articles fit to be published in a tense political climate was imperative. Coleridge's political journalism took on even more of a patriotic tone after 1811. It was a crisis year in England, with the reviled Prince Regent appointed in place of George III, and the continuing war against France dividing English society. The deaths of Pitt and Fox also meant there was no firm leadership in government. Coleridge's patriotism however angered some, especially Hazlitt, who believed that he had disgracefully rejected his radical roots. Further crisis ensued in 1812, when the Tory Prime Minister, Spencer Perceval, was shot dead in the House of Commons. This was a turning point for Coleridge's perception of public affairs. Whilst demonstrations over crippling taxes, high unemployment, inflation and the war were sparked, Coleridge strengthened his position against radicalism. In his view, 'we have not yet so far recovered from our astonishment and horror at this atrocious assassination', which had highlighted how a radical position, supporting or sympathising with the violence and disillusion of the popular cause was now untenable. Using his public platform in the *Courier*, Coleridge, three days after the assassination in May, condemned the event, and contrasted the French military despotism with the form of constitutional government enjoyed by England. This marks Coleridge's public shift from radicalism to reform.

1815 and Political Apostasy

Napoleon's defeat at Waterloo in June 1815 was an event that prompted widespread celebration in England at the defeat of an oppressive power. For the radical champion of liberty Hazlitt however, 'the historian's classic example of the English Jacobin turned Buonapartist', these events were distressing. Simon Bainbridge has argued that Napoleon became an 'imaginary' figure for the three Lake Poets (Wordsworth, Coleridge and Robert Southey), and for their antagonists, Byron and Hazlitt. Each of them devised their own interpretation of Napoleon to embody their personal and political hopes and fears. But they viewed Napoleon as holding an important place within the public 'imagination', an effect that reinforced his hold on power. Thus,

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23 Holmes, *Darker Reflections*, p. 386.
according to their own political sympathies, each attempted through their representations of him, to affirm his place within, or to expel him from, this public arena. Coleridge and Wordsworth had come to regard Napoleon's grip over the contemporary imagination as dangerous, even treacherous. The actual defeat of Napoleon at Waterloo was, they believed, necessary before any defeat of Napoleon in the imagination could occur.\(^{25}\)

Hazlitt did not view the defeat in the same terms as the Lake Poets; to Hazlitt, news of Napoleon's defeat was 'like a bomb-shell'.\(^{26}\) In the overthrow of Napoleon, and the restoration of the Bourbon Empire, Hazlitt saw his hopes for liberty dashed. Casting him as a symbol of democratic meritocracy, Hazlitt used Napoleon to champion the cause of the Revolution, using him as a focus of opposition to the status quo of the British establishment.\(^{27}\) In Hazlitt's characterisation, Napoleon had been a powerful figure able to defeat legitimacy, that is governance by a sequence of divinely instituted rulers, whose succession follows on a principle of heredity and primogeniture. Hazlitt argued that it was Napoleon who had saved him from 'the dungeon of Legitimacy, the very tomb of freedom' where people having no hope of liberty and only 'abject wretchedness and hopeless desolation'.\(^{28}\) Reserving some of his choicest phrases for legitimacy, 'an old hypocritical hag',\(^{29}\) and 'that detestable fiction, which would make you and me and all mankind its slaves or victims', Hazlitt insisted that its evils were legion: it 'makes genius its lacquey, and virtue its easy prey; sports with human happiness, and mocks at human misery; suspends the breath of liberty, and almost of life'.\(^{30}\) For Hazlitt, the one who made a mock of the doctrine of Legitimacy,

'and sets at nought its powers, is to me not less than the God of my idolatry, for he has left one drop of comfort in my soul. The plague-spot has not tainted me quite; I am not leprous all over, the lie of Legitimacy does not fix its mortal sting
in my inmost soul, nor, like an ugly spider, entangle me in its slimy folds; but is kept off from me, and broods on its own poison. He who did this for me, and for the rest of the world, who alone could do it, was Buonaparte.\textsuperscript{31}

Thus Hazlitt later described the battle at Waterloo in his \textit{The Life of Napoleon Buonaparte} as 'the greatest and most fatal in its consequences that ever was fought in the world',\textsuperscript{32} and one that heralded the total eclipse of Hazlitt's political hopes. Indeed, Hazlitt believed that when Napoleon fell, 'we, all men, fell with him, like lightning from heaven, to grovel in the grave of Liberty, in the sty of Legitimacy!'\textsuperscript{33}

Regaining some of his composure, Hazlitt used his pen to express his abject disappointment. The combination of the fall of Napoleon, and the vacillation, procrastination and apostasy that he saw in the person of Coleridge, the man, the genius, in whom he had once had such confidence, shattered Hazlitt's hopes for liberty. Feeling betrayed, disillusioned and disappointed, he spent the next few years ruthlessly and publicly criticising Coleridge for rejecting his radical roots, castigating him for intellectual charlatanism and political apostasy. By 1816, relations between Hazlitt and Coleridge were at their lowest ebb. Hazlitt began to find his voice in the journals, particularly in the liberal-radical weekly \textit{Examiner}, and began attacking Coleridge's writing, ideas and personal failures. Prime among Hazlitt's hates was the fact that Coleridge did nothing. In what became a common refrain, Hazlitt complained in a review of Coleridge's poem 'Christabel' in 1816, that, 'He is a man of that universality of genius, that his mind hangs suspended between poetry and prose, truth and falsehood, and an infinity of other things, and from an excess of capacity, he does little or nothing.'\textsuperscript{34} Hazlitt was unremitting in his condemnation: 'His genius has angel's wings; but neither hands nor feet',\textsuperscript{35} lamenting that Coleridge was profligate and allowed his genius to atrophy by always \textit{talking} and never actually \textit{doing}. In 1817, writing to the Editor of the \textit{Examiner}, Hazlitt complained that

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\textsuperscript{31} Hazlitt, Preface to his Political Essays, in Hazlitt, \textit{Selected Writings of William Hazlitt}, IV, p. 8.
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'from reading your account of the "Lay-Sermon," I begin to suspect that my notions formerly must have been little better than a deception: that my faith in Mr. Coleridge’s great powers must have been a vision of my youth, that, like other such visions, must pass away from me; and that all his genius and eloquence is vox et præterea nihil [words and nothing more]: for otherwise how is it so lost to all common sense upon paper?\(^{36}\)

Under the spell of legitimacy, genius in Britain did nothing.

**Imagination, Disembodiment and Unity**

While Hazlitt continued to regret the missed opportunity of establishing true liberty, and channelled his disappointment into polemics against Coleridge, Coleridge began to develop the idea of genius in different ways. These thoughts were first published as part of his *Biographia Literaria* (1817), Coleridge’s blueprint setting out his definitive ‘principles in Politics, Religion, and Philosophy’,\(^{37}\) being the sum of all the matter Coleridge had assimilated from German authors, *Natur-philosophen*, who came to shape his thinking so profoundly, among them Schiller, Kant and Schelling.\(^{38}\) Over the preceding twenty years, Coleridge had shifted his stance away from the materialist views of the British empiricists (especially Locke and David Hartley) towards the new ‘dynamic’ German philosophy, particularly that of Kant and Schelling. Developing these ideas, Coleridge thus proposed a transcendental conception of the mind, which meant a mind that possessed its own intuitive faculties that shaped experience, and had access to spiritual realms that lay beyond rational ‘Understanding’. As Richard Holmes has observed, the *Biographia* chronicles Coleridge’s ‘philosophic conversion’ from an atheistic materialist perspective to a religious view of the world,\(^{39}\) employing an organic model of human creativity.\(^{40}\)

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\(^{37}\) Coleridge, *Biographia*, p. 3.


\(^{39}\) Holmes, *Darker Reflections*, p. 393; see also pp. 398-399.

Within the context of conservative reaction in English politics and using an organic model, Coleridge used the *Biographia* as a platform to claim a unique place for the poetic genius. Anxious to promote the ideal of a conservative, Christian culture as a defence against the onslaught of materialism, Coleridge attempted in his *Biographia* to snatch a canon of great literature, among which was the work of his friend Wordsworth, from the grasp of those eager to press literature into the service of radical reform.\(^{41}\) He complained that the works of successive poets, combined with the artificial state of society and of social intercourse had mechanised language, so that one needed no genius, apparently, to be able to write poetry: ‘Thus even the deaf may play, so as to delight the many.’ Since the state of literature meant that one could earn a living, in ‘the manufacturing of poems’, with the least amount of ‘talent or information’, Coleridge hoped to help clarify the distinctions between poetry of genius and that of none: ‘The difference indeed between these and the works of genius, is not less than between an egg and an egg-shell; yet at a distance they both look alike.’\(^{42}\)

But equally, and early on in his *Biographia*, Coleridge insisted that he could not have been the man capable of fulfilling the responsibilities of genius. Admitting his flaws, Coleridge attested that ‘it never occurred to me to believe or fancy, that the quantum of intellectual power bestowed on me by nature or education’ needed any fostering. Thus other forces had taken over, among them his ‘constitutional indolence, aggravated into languor by ill health; the accumulating embarrassments of procrastination; the mental cowardice, which is the inseparable companion of procrastination, and which makes us anxious to think and converse on any thing rather than on what concerns ourselves’.\(^{43}\)

Instead he highlighted the capabilities of his old friend Southey, whom he described in terms of what pure genius was capable of effecting for society. In choosing Southey as the embodiment of model genius, Coleridge was not only answering back Southey’s critics on the Poet Laureate’s behalf, whose talents had been publicly deprecated and his principles denounced, but was also asserting his own view of what genius was capable of. Coleridge insisted on recording that ‘it is SOUTHEY’s almost unexampled felicity,
to possess the best gifts of talent and genius free from all their characteristic defects.' Continuing the panegyric, Coleridge emphasised Southey's 'matchless industry and perseverance', 'the worthiness and dignity' of his pursuits, and that Southey 'possesses, and is not possessed by, his genius,' and was also 'the master even of his virtues'. Coleridge highlighted Southey's emphasis on the duty towards his country, which he had clearly felt, displaying a service to the common good, and a desire to bend the abilities and products of his genius to the use of society. ‘As a writer,’ Coleridge observed, 'he has uniformly made his talents subservient to the best interests of humanity, of public virtue, and domestic piety; his cause has ever been the cause of pure religion and of liberty, of national independence and of national illumination.'

Whether Southey actually achieved or aimed at this was essentially irrelevant. Coleridge was simply using him as an example of the political ends Coleridge was putting to genius, the way that genius was capable of serving the common good within the framework of the British Establishment.

Besides being committed to what Coleridge viewed as the right causes, the man of genius was also charged with an important interpretative duty. The genius was not a perfectly faithful imitator of nature for Coleridge. Instead, drawing on the ideas of the German theorists, it was the role of the genius to commune with and assimilate nature unconsciously without distortion, to act as her interpreter, extracting elements from nature that no one else had ever highlighted, or had the genius to see or reveal. For Coleridge, Wordsworth was the prime exemplar of such genius. Each image Wordsworth created, Coleridge argued, was distinguishable from reality

‘only by its greater softness and lustre. Like the moisture or the polish on a pebble, genius neither distorts nor false-colours its objects; but on the contrary brings out many a vein and many a tint, which escape the eye of common observation, thus raising to the rank of gems, what had been often kicked away by the hurrying foot of the traveller on the dusty high road of custom.'

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44 Coleridge, *Biographia*, pp. 42, 43, 44.
45 Coleridge, *Biographia*, p. 188.
Further, the genius was able to ‘combine the child’s sense of wonder and novelty with the appearances, which every day for perhaps forty years had rendered familiar’. This was ‘the prime merit of genius and its most unequivocal mode of manifestation’. Thus, ‘In poems, equally as in philosophic disquisitions, genius produces the strongest impressions of novelty, while it rescues the most admitted truths from the impotence caused by the very circumstance of their universal admission.’

This was a conception of the genius which could therefore be put to the service of both the arts and science, since the geniuses in both areas did not copy nature but acted as her interpreters (in science) and imitators (in the arts).

Again from the influences of German thought, Coleridge had inherited a sense of the importance of the imagination as the faculty that was to enable this process of interpretation. From 1802 and his growing interest in German Naturphilosophie and metaphysics, Coleridge had been fascinated by the unity of the world as a single organic whole. This philosophical search for unity informed many of the writings of the rest of his career, and underpinned his Biographia: in Coleridge’s hands, the imagination became a force that was capable of the unification of all things. To describe this quality, Coleridge coined the term ‘esemplastic’, meaning ‘to shape into one’. Yet a point that is often overlooked in discussions of Coleridge’s aesthetic theory is the great importance he attached to his Christian beliefs. The esemplastic power of the imagination, the linchpin of genius, and essential for the unification of knowledge and all creative acts, shared or reflected a sense of the divine power of the infinite. The creative powers of the human imagination were active and free, expressing ‘the free-will, our only absolute self.’ Metaphysically treated therefore, the imagination was a proof of the liberty of the human spirit. Coleridge’s conception of the imagination was fundamentally a spiritual interpretation arising from a theological matrix.

This esemplastic imagination was to play a crucial role, providing Coleridge with a medium through which objectivity and subjectivity were reconciled. In his discussion

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48 Coleridge, Biographia, p. 54.
49 Holmes, Darker Reflections, p. 108.
50 Coleridge, Biographia, pp. 97, 114.
51 Holmes, Darker Reflections, p. 394.
52 See Thomas McFarland, Originality and Imagination (Baltimore, 1985), p. 89.
of the relationship between objectivity, represented by physical nature, and subjectivity represented by the self or intelligence, Coleridge wrote that

'philosophy would pass into religion, and religion become inclusive of philosophy. We begin with the I KNOW MYSELF, in order to end with the absolute I AM. We proceed from the SELF, in order to lose and find all self in GOD.'

This was critical for the workings of genius. It highlights the immense emphasis Coleridge placed on the spiritual self-dependence of genius. But this self-dependence also demanded unselfconsciousness. As Coleridge’s *Biographia* illustrates, Coleridge believed that the character of true genius was defined by his unselfconsciousness, such that a genius’s ‘sensibility is excited by any other cause more powerfully, than by its own personal interests’. This disembodiment was vital for the action of genius: by disembodying soul, or self, or intellectual part from his material existence, the man of genius was then in a position, through using the esemplastic imagination, to effect a unity with God.

Elaborating on his ideas, Coleridge stressed the differences between fancy and the imagination. Essentially, these two concepts mark the distinction between the mechanical and the organic creative systems of artistic endeavour. As part of his war against the mechanico-corporeal philosophy, Coleridge’s distinction between the mechanical fancy and the living imagination formed the heart of his theory of the process and products of literary invention. For Coleridge, the memory was ‘mechanical’ and the fancy ‘passive’. Fancy was thus a mechanical capacity that imitated and linked ideas or feelings. Hence, in contrast to imagination, fancy

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56 An important observation linking Coleridge into the English Enlightenment tradition of ideas of genius was made by Logan Pearsall Smith, one of the early twentieth century historians of the ideas of originality, imagination, and genius, as contrasted with talent. Smith suggested that Coleridge gleaned his information concerning the distinction between the fancy and the imagination from William Duffs,*An Essay on Original Genius* (London, 1767); see Logan Pearsall Smith, *S.P.E. Tract No. XVII Four Words: Romantic, Originality, Creative, Genius* (Oxford, 1924), p. 33; see also Thomas McFarland, *Originality and Imagination* (Baltimore, 1985), p. 176.
'has no other counters to play with, but fixities and definites. The Fancy is indeed no other than a mode of Memory emancipated from the order of time and space; while it is blended with, and modified by that empirical faculty of the will, which we express by the word CHOICE. But equally with the ordinary memory the Fancy must receive all its materials ready made from the law of association.'

This account had formerly been the total account of poetic invention, but after everything that could be had been explained in these terms, Coleridge found a residue, which he attributed to the secondary imagination. Conceiving imagination as an organic and transformative, as opposed to a purely mechanical, faculty, Coleridge believed that it comprised two kinds, primary and secondary: the primary was a copy of the transcendent faculty that created divinely, the secondary was its echo:

'The IMAGINATION then I consider either as primary, or secondary. The primary IMAGINATION I hold to be the living Power and prime Agent of all human Perception, and as a repetition in the finite mind of the eternal act of creation in the infinite I AM. The secondary I consider as an echo of the former, co-existing with the conscious will, yet still as identical with the primary in the kind of its agency, and differing only in degree, and in the mode of its operation. It dissolves, diffuses, dissipates, in order to re-create; or where this process is rendered impossible; yet still at all events it struggles to idealize and to unify. It is essentially vital, even as all objects (as objects) are essentially fixed and dead.'

The historical importance of Coleridge's concept of imagination has not been exaggerated; it was the first important channel for the flow of organicism, the philosophy whose major categories were derived metaphorically from the processes of growing and living things (shown by his use of 'vital' in the above quote) into English aesthetics. For Coleridge, the imagination was the combining and unifying power, and the poet who possessed this faculty was able to reconcile opposing forces within

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60 Coleridge, *Biographia*, p. 175, Coleridge's emphasis.
himself. Coleridge believed that a dimness of the imaginative power, and therefore a need to rely on immediate impressions of the senses, would render the mind liable to superstition and fanaticism.\textsuperscript{62} It was the combination of imagination with other faculties, in poetry above all, that achieved a unity of action in the whole soul of man:

"The poet, described in ideal perfection, brings the whole soul of man into activity, with the subordination of its faculties to each other, according to their relative worth and dignity. He diffuses a tone, and spirit of unity, that blends, and (as it were) fuses, each into each, by the synthetic and magical power, to which we have exclusively appropriated the name of imagination. This power, first put in action by the will and understanding, and retained under their irremissive, though gentle and unnoticed, controul \[sic\] ... reveals itself in the balance or reconciliation of opposite or discordant qualities: of sameness, with difference; of the general, with the concrete; the idea, with the image; the individual, with the representative; the sense of novelty and freshness, with old and familiar objects; a more than usual state of emotion, with more than usual order; judgement ever awake and steady self-possession, with enthusiasm and feeling profound or vehement; and while it blends and harmonizes the natural and the artificial, still admiration of the poet to our sympathy with the poetry."\textsuperscript{63}

In this idea of the aesthetic as a balance of opposites, of art requiring the activity of the whole soul of man, Coleridge was again reliant on German critics such Schelling and Schiller, particularly Schiller's *Letters Concerning the Aesthetic Education of Man* (1794-5).\textsuperscript{64}

In describing genius as an organic entity, Coleridge repeated the old adage that 'Poeta nascitur non fit' ('A poet is born, not made'). Although poets could cultivate and improve their genius, it could never be learnt. The 'man of talents and much reading' could, by 'incessant effort' amass a wealth of imagery from nature, books, experiences, and combine them with his own feelings. Yet genius would still elude him: 'the sense of musical delight, with the power of producing it, is a gift of imagination; and this together with the power of reducing multitude into unity of effect, and modifying a series of thoughts by some one predominant thought or feeling, may be cultivated and

\textsuperscript{62} Coleridge, *Biographia*, p. 19.
\textsuperscript{63} Coleridge, *Biographia*, pp. 184-185, Coleridge's emphasis.
\textsuperscript{64} Nigel Leask, Editor's Notes, in Coleridge, *Biographia*, pp. 365-449: p. 412.
improved, but can never be learnt." Coleridge concluded by insisting that, 'Finally, GOOD SENSE is the BODY of poetic genius, FANCY its DRAPERY, MOTION its LIFE, and IMAGINATION the SOUL that is every where, and in each; and forms all into one graceful and intelligent whole.' The action of a man's genius therefore achieved a state of unity in the soul of the man; although highly individualised, and the final cause of nature, the genius was to effect a unification of the matter and spirit of nature through the unselfconscious intercession of his own body and his own mental faculties, with imagination prime among these faculties. Thus, through exercising the highest mental powers available to humanity, fragments of nature would be unified in one individual. It was this process of unity that Nature was rolling towards, and the perfect exemplification of this was the man of genius, in whom humanity and nature communed.

Other authors also highlighted the need for disembodiment in the act of producing a work of genius, with the individual becoming subsumed in the whole in the metaphysical world. In Hazlitt's view, concerning authors, poets, and philosophers, 'it is pretty certain that whatever they make others feel in any marked degree, they must themselves feel first; and further, they must have this feeling all their lives. It is not a fashion got up and put on for the occasion; it is the very condition and ground-work of their being.' In Hazlitt's conception, the act of assimilation was also a transcendental experience:

'Whatever the reader thinks fine in books ... assuredly existed before in the living volume of the author's brain: that which is a passing and causal impression in the one case, a floating image, an empty sound, is in the other an heirloom of the mind, the very form into which it is warped and moulded, a deep and inward harmony that flows on for ever, as the springs of memory and imagination unlock their secret stores. ... The personal is, as much as may be, lost in the universal. He is Nature's high-priest, and his mind is a temple where she treasures up her fairest and loftiest forms. These he broods over, till he

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65 Coleridge, Biographia, pp. 186-187.
66 Coleridge, Biographia, p. 185.
becomes enamoured of them, inspired by them, and communicates some portion of his ethereal fires to others." 67

Yet an important qualification to this disembodiment also emerged in the 1810s. While recognising the need for disembodiment in the act of creation, others at the same time insisted on the need for some formal official recognition to be made of ownership that was specific to the individual concerned. Wordsworth, for instance, called for the creation of a new category of individual to whom original works would belong: a rooting of the products of genius within the temporal sphere. Genius was increasingly identified with the material productions themselves, which were viewed as the true evidence of the power of genius within the person. Writing in 1815 what has become a classic statement on authorial genius to historians of the development of copyright, Wordsworth had remarked,

‘Of genius the only proof is, the act of doing well what is worthy to be done, and what was never done before: Of genius, in the fine arts, the only infallible sign is the widening the sphere of human sensibility, for the delight, honour, and benefit of human nature. Genius is the introduction of a new element into the intellectual universe: or, if that be not allowed, it is the application of powers to objects on which they had not before been exercised, or the employment of them in such a manner as to produce effects hitherto unknown.’ 68

Wordsworth was advocating the creation of a new type of being, the solitary, original author, whose rights were protected by a society that would appreciate, if only eventually, the products of his genius. 69 In order to retain control over this however, men such as Wordsworth were anxious for a system of greater control over what happened to the productions of an individual’s genius once they were placed in the public domain. Such a development was not original to England: the reformulation of the nature of writing in Germany by a new class of professional writers in the eighteenth century.

century was translated to the English situation, ideas from Goethe, Schiller and the Schlegel brothers that were subsequently taken up by Shelley, Carlyle, Ruskin and Arnold and others in the nineteenth century. The work of a writer was thus intrinsically bound up with the soul and person of the individual who produced it; since something of them went into the production they were thus entitled to claims over it. The original work was therefore established as the property of the original individual who created it.

**Health and Sanity**

However it was also essential, that when the genius became unselfconscious he should yet remain reasonable. The following discussion seeks to redress Becker's belief (as stated in the Introduction to the present project) that the Romantics sought to characterise themselves as mad in order to indicate 'otherness': Coleridge, for example, believed madness and genius to be polar opposites. In a discussion in his *Biographia* of the importance of sensibility, 'both quick and deep', as a component part of genius, Coleridge revealed in a footnote, which alone suggests how relatively trivial he found the association, his belief in the sanity of the true genius. He allowed that if the profound sensibility of genius were considered in isolation, 'single and unbalanced', then 'it might be fairly described as exposing the individual to a greater chance of mental derangement'. However, Coleridge insisted, genius consisted in a balance of faculties. He believed a more than usual rapidity of association of ideas and thoughts 'is a component equally essential', such that 'in the due modification of each by the other the GENIUS itself consists'. For Coleridge then, likening genius to madness was 'just as fair to describe the earth, as in imminent danger of exorbitating, or of falling

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70 Martha Woodmansee, 'The genius and the copyright: economic and legal conditions of the emergence of the 'author'', *Eighteenth-Century Studies*, 17 (1984), 425-448, especially pp. 425 and 426.
into the sun, according as the assertor of the absurdity *confined* his attention either to the projectile or to the attractive force exclusively." 74

Contemporaries of Coleridge also shared the view that genius was fundamentally a healthy faculty, and suggested good mental and physical health was necessary to support great genius. Hazlitt, for instance, believed that genius would not be expressed without health. Observing that every genius needed constitutional talent in order to succeed, Hazlitt remarked that the dull, plodding fellow was often likely to do ‘better than one of a more mercurial and fiery cast’, because the unconsciousness of their own deficiencies ‘reconciles him to his mechanical progress, and enables him to perform all that lies in his power with labour and patience.’ Whereas the dull fellow would be ‘content with mediocrity’, the ‘man of greater taste or genius’, Hazlitt supposed, would ‘fling down his pen or pencil in despair, haunted with the idea of unattainable excellence, and ends in being nothing, because he cannot be every thing at once.’ For Hazlitt, no man was able to get on in the world without what he referred to as *constitutional talent*, by which he meant ‘the warmth and vigour given to a man’s ideas and pursuits by his bodily stamina, by mere physical organization.’ In Hazlitt’s view then, physical health was paramount: ‘A weak mind in a sound body is better, or at least more profitable, than a sound mind in a weak and crazy conformation. How many instances might I quote!’ Thus truly great genius, as seen in Shakespeare, Milton, Titian and Raphael, was impossible without physical health. He also offered an explanation for why ordinary men might think the pale scholar seemed unhealthy: as Hazlitt reasoned,

‘The wear and tear of the mind does not improve the sleekness of the skin, or the elasticity of the muscles. The burthen of thought weighs down the body like a porter’s burthen. A man cannot stand so upright or move so briskly under it as if he had nothing to carry in his head or on his shoulders.’ 75

Perhaps the most famous statement of the health of genius came from the pen of Charles Lamb (1775-1834), whose ‘The sanity of true genius’ (written in May 1826) appeared

74 Coleridge, *Biographia*, p. 28, Coleridge’s italics.
among his *The Last Essays of Elia* in 1833. Lamb argued for the safety and excellence of true genius, emphasising that since the Romantic genius was in control of itself, it was therefore neither a dangerous, subversive revolutionary, nor intoxicated. For Lamb, as for Coleridge,

'So far from the position holding true, that great wit (or genius, in our modern way of speaking), has a necessary alliance with insanity, the greatest wits, on the contrary, will ever be found to be the sanest writers. It is impossible for the mind to conceive of a mad Shakspeare [sic]. The greatness of wit, by which the poetic talent is here chiefly to be understood, manifests itself in the admirable balance of all the faculties. Madness is the disproportionate straining or excess of any one of them.'

Lamb, like Hazlitt, also found the mistake had originated in the minds of ordinary men who misunderstood the physical signs the genius exhibited when producing his work: 'The ground of the mistake is, that men, finding in the raptures of the higher poetry a condition of exaltation, to which they have no parallel in their own experience, besides the spurious resemblance of it in dreams and fevers, impute a state of dreaminess and fever to the poet.' The 'true poet' however, 'is not possessed by his subject, but has dominion over it. In the groves of Eden he walks familiar as in his native paths. He ascends the empyrean heaven, and is not intoxicated.'

Thus Lamb also promoted a kind of disembodiment, but it was one he stressed that the great genius-poet would have control over. Lamb proposed that in the creative process the truest genius would seem most unlike the human form. Yet it was this perceived difference that would prompt others, not understanding the process, to believe the man was mad, since he seemed to controvert standard modes of behaviour. Thus,

'Where he seems most to recede from humanity, he will be found the truest to it. From beyond the scope of Nature if he summon possible existences, he subjugates them to the law of her consistency. He is beautifully loyal to that sovereign directress, even when he appears most to betray and desert her.'

True genius could not be mad, but 'little wits', those who pretended to great genius, who did not possess the active imagination of true genius, and who deviated from

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nature, consequently exhibited that 'which has a natural alliance with frenzy'. For Lamb, therefore, true genius was recognised by his ability to control his imagination; the pretenders to the crown of genius would be overcome in their efforts. It was the inevitable ungodly ravings of these pretenders who prompted other men to assume that genius was linked with insanity. The sanity of true genius might well be hidden behind seemingly wildly constructed poetry, such as Spenser's *Faerie Queene*, but it was there all the same, giving its own version of order to apparent chaos.  

Such ideas as to the reasonableness of true genius also informed discussions of the life and works of the poet and engraver William Blake (1757-1827). It appears that the Romantic poets were unsure how to characterise him, but attempts were made to stress that the act of disembodiment, the kind of inspirational trances that Blake experienced, were not evidences of insanity, but an acute expression of his genius. Blake shared sympathies with his Romantic contemporaries, being also counted among the English Jacobins inspired by the French Revolution. Coleridge privately held Blake to be 'a man of Genius', Hazlitt ranked Blake among the mystic artists of the period, and Lamb was reported to have praised Blake as 'a most extraordinary man', considering his engravings as 'wild designs', which 'have great merit'. Whilst often feeling respect and admiration for Blake, other writers, men like the barrister and diarist Henry Crabb Robinson, as well as Southey and others, believed Blake to have been mad, persuaded by the visions he claimed to see. On meeting Blake in December 1825, Crabb Robinson had not been at all sure how to categorise him: 'Shall I call Blake artist, genius, mystic, or madman? Probably he is all.'

After Blake's death in 1827, others who had known him well insisted on his sanity. In his popular *Lives of the Most Eminent British Painters, Sculptors, and Architects*...

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(1830), Allan Cunningham provided an anecdotal biography of Blake, which has been viewed as perhaps the most important factor in keeping Blake's name alive from 1830 until Alexander Gilchrist produced his definitive *Life* in 1863. Cunningham insisted that Blake's visions had been the raw material for his genius, yet, 'Had he always thought so idly, and wrought on such visionary matters, this memoir would have been the story of a madman, instead of the life of a man of genius'. Similarly, the anonymous author of a favourable appreciation of Blake that appeared in the *London University Magazine* after his death, argued that the figures and visions in the poems which Blake produced were reason enough for readers to 'endeavour rather to unlock the prison-door in which we are placed, and gain an insight into his powerful mind than rail and scoff at him as a dreamer and madman'.

### Hazlitt's Despair

Genius, in Hazlitt's view, clearly demanded more than good mental and physical health: it also required the will to use it. In his brutal attack on Coleridge's *Biographia* in 1817, Hazlitt declared,

'Mr. C., with great talents, has, by an ambition to be everything, become nothing. His metaphysics have been a dead weight on the wings of his imagination, while his imagination has run away with his reason and common sense. He might, we seriously think, have been a very considerable poet, instead of which he has chosen to be a bad philosopher and a worse politician.'

Hazlitt's complaint was that Coleridge had genius, and had a duty to exercise it. But as Hazlitt later complained in 1825,

'Mr. Coleridge, by dissipating his [intellect], and dallying with every subject by turns, has done little or nothing to justify to the world or to posterity, the high opinion which all who have ever heard him converse, or known him intimately, with one accord entertain of him.'

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88 Hazlitt, *Spirit of the Age*, p. 76.
Hazlitt's disappointment in the genius of Coleridge hinged on his perception that Coleridge knew what he ought to do but actually did nothing. Hazlitt's despair thus lay in Coleridge's failure to embody his politicised view of genius as a radical entity capable of effecting some fundamental societal changes and restoring liberty. In the wake of Napoleon's defeat in 1815, Hazlitt felt legitimacy had conquered liberty. In his views on liberty Hazlitt was heavily influenced by the political philosophy of Jean-Jacques Rousseau (1712-1778), particularly by the treatise on liberty, *The Social Contract* (1762). In 1817, Hazlitt firmly linked liberty with a secular form of agape: 'The love of liberty is the love of others; the love of power is the love of ourselves. The one is real; the other often but an empty dream. Hence the defection of modern apostates.' Hazlitt asserted in 1818 that, 'For a people to be free, it is sufficient that they will to be free. But the love of liberty is less strong than the love of power; and is guided by a less sure instinct in attaining its object.' Power, for Hazlitt, thus swallowed up natural, liberty promoting, genius: 'That 'fine word Legitimate' never produced any thing but bastard philosophy and patriotism!' He continued,

'the tide of power constantly setting in against the people, swallows up natural genius and acquired knowledge in the vortex of corruption, and then they reproach us with our want of leaders of weight and influence, to stem the torrent. All that has ever been done for society, has, however, been done for it by this intellect, before it was cheapened to be a cat's-paw of divine right. All discoveries and all improvements in arts, in sciences, in legislation, in civilization, in every thing dear and valuable to the heart of man, have been made by this intellect—all the triumphs of human genius over the rudest barbarism, the darkest ignorance, the grossest and most inhuman superstition, the most unmitigated and remorseless tyranny, have been gained for themselves by the people.'

Hazlitt's radicalism and his radical conception of genius, the ideas in which he had been so inspired by Coleridge in the late 1790s, were out of place in the period of reaction, in an England struggling to maintain peace at home and abroad, and to repair the damage

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inflicted on the country's resources by the ravages of war. But the idea of liberty to which Hazlitt appealed had been contaminated and stigmatised during the period of conservative reaction in the 1810s. Claims to freedom had been 'once more set aside, annulled, overthrown, trampled upon with every mark of insult and ignominy, in word or deed'.

Hazlitt wrote explicitly on genius and fine-tuned his ideas in a number of essays that appeared in his volume of collected essays entitled Table Talk (1821-22). He revealed a definition of genius very similar to that of Coleridge's, emphasising the relationship of communion between genius and nature: genius, or originality, for Hazlitt was 'for the most part, some strong quality in the mind, answering to and bringing out some new and striking quality in nature. Imagination is, more properly, the power of carrying on a given feeling into other situations, which must be done best according to the hold which the feeling itself has taken of the mind.' Like Coleridge, Hazlitt also portrayed the man of great genius as disembodied, or depersonalised in the moment of creation, becoming unselfconscious in order to create. The literary exemplar of this for Hazlitt, the man who became a vessel for nature, was Shakespeare: 'His genius consisted in the faculty of transforming himself at will into whatever he chose: his originality was the power of seeing every object from the exact point of view in which others would see it. He was the Proteus of human intellect.' Rembrandt was also singled out as an interpreter of nature, a genius who had brought out realities and not simply ideals from nature. In men of the greatest genius therefore, nature would act so as to be imperceptible to the man:

'The works of the greatest genius are produced almost unconsciously, with an ignorance on the part of the persons themselves that they have done any thing extraordinary. Nature has done it for them. How little Shakespear seems to have thought of himself or of his fame!'
Genius was unseen and its products were natural; it acted so unconsciously, that 'the true inspiration of the Muse is soft and balmy as the air we breathe' which 'leaves us little to boast of, for the effect hardly seems to be our own.'

Yet genius for Hazlitt demanded deeds, and not simply empty words or vague intentions. While Coleridge recognised the duty owed by each person to employ their faculties, he and Hazlitt disagreed over the extent to which Coleridge possessed genius, and whether he was able to achieve anything. It was acknowledged, not only by Hazlitt, that Coleridge's principal fault was his lack of will. As the young Thomas Carlyle commented, after making his first visit to Coleridge in June 1824, 'His cardinal sin is that he wants will; he has no resolution, he shrinks from pain or labour in any of its shapes.' Hazlitt put a moral imperative on the use of genius, clearly believing that it was only through trying that genius was capable of achieving anything:

'By lying idle, as by standing still, we are confined to the same trite, narrow round of topics: by continuing our efforts, as by moving forwards in a road, we extend our views, and discover continually new tracts of country. Genius, like humanity, rusts for want of use.'

Believing that genius was called to perform great acts and achievements, Hazlitt suggested that true genius consisted in bestowing something for the lasting benefit of mankind: 'Ingenuity is genius in trifles, greatness is genius in undertakings of much pith and moment. A clever or ingenious man is one who can do any thing well, whether it is worth doing or not: a great man is one who can do that which when done is of the highest importance.' Thus lawyers, founders of religion, conquerors and heroes, philosophers and 'great geniuses in arts and sciences', were great men, because 'they are great public benefactors, or formidable scourges to mankind. Among ourselves, Shakespear, Newton, Bacon, Milton, Cromwell, were great men, for they shewed great power by acts and thoughts, which have not yet been consigned to oblivion.' In this vein, Hazlitt reserved judgment as to whether Davy was a great man, since, despite

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being a great chemist, 'I am not sure that he is a great man. I am not a bit the wiser for any of his discoveries, nor [have] I never met with any one that was.'

But this was to not to emphasise a simple utilitarian view of genius, as Davy had done. In Hazlitt's view,

'man is an animal compounded both of imagination and understanding; and in treating of what is good for man's nature, it is necessary to consider both. A calculation of the mere ultimate advantages, without regard to natural feelings and affections, may improve the external face and physical comforts of society, but will leave it heartless and worthless in itself.'

Hazlitt's writing of the 1820s demonstrates not only his disappointment with Coleridge and his political apostasy, but also his disillusionment with the concept of genius itself. Hazlitt increasingly referred to the evanescent nature of genius, the passing of time and reputations of men such as 'the immortal, the forgotten Webster', proving to him that 'so perishable is genius'. Recounting an occasion when walking with Coleridge while visiting him at Alfoxden, Hazlitt commented on the liberty he had felt to read the book of nature as it was laid out before him. Yet,

'besides the prospect which opened beneath my feet, another also opened to my inward sight, a heavenly vision on which were written, in letters large as Hope could make them, these four words, LIBERTY, GENIUS, LOVE, VIRTUE; which have since faded into the light of common day, or mock my idle gaze.'

By 1823 Hazlitt was expressing total disillusionment with the term. Continuing his public accounts of his abhorrence of legitimacy, it being so opposed to his dreams of liberty, Hazlitt confessed to having become 'heartily sick' on account of his old opinions, 'for they have deceived me sadly'. Referring to the part in his youth when he was taught to think and was willing to believe, 'that genius was not a bawd—that virtue was not a mask—that liberty was not a name—and that love had its seats in the human

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99 William Hazlitt, 'The Indian Jugglers' (first published in Table-Talk; or, Original Essays, vol. 1, 6 April 1821), in Hazlitt, Selected Writings of William Hazlitt, VI, pp. 67-77: quotes pp. 72, 73 and 74.
Heart’, Hazlitt insisted that, ‘Now I would care little if these words were struck out of the dictionary, or if I had never heard them. They are become to my ears a mockery and a dream’. This period had been a particularly gruelling one emotionally for Hazlitt, coping with the trials of attaining a divorce from his wife, Sarah Stoddart. His letters to his friend Peter George Patmore during 1822, also reveal his wrestling with his deep, desperate love for a servant, Sarah Walker, who seemed to encourage and then spurn his advances, an outline of which affair he published in his notorious Liber Amoris (1823). Hazlitt felt abandoned and failed by everyone and everything in which he had ever placed any hope. All that remained in the place of true patriots and friends of freedom, were now tyrants and slaves, and he tarred all parties, Tory, Reformer and Whig, with the same brush. The blame for all this, the undoing of what had been achieved ‘by the mighty yearnings of the spirit and intellect of men,’ and all ‘that promised a proud opening to truth and good through the vista of future years,’ Hazlitt pinned on one man: Coleridge. It was Coleridge, the genius who, Hazlitt believed, had possessed ‘just glimmering of understanding enough to feel that he was a king, but not to comprehend how he could be king of a free people!’ Hazlitt bewailed the fact that England did not see that it was being taken over by ‘this new monster, Legitimacy’.

Hazlitt never wavered in his opinion of what he perceived as Coleridge’s failure to live up to his genius. Redoubling his efforts to slay what good reputation Coleridge had managed to acquire by 1825, Hazlitt penned a particularly damning indictment of Coleridge’s conversation and eloquence in his The Spirit of the Age. In this book, Hazlitt provided character sketches, or assassinations, of many key contemporary literary figures, including Southey, Byron, and Wordsworth, casting his critical gaze over their achievements and failures. Few were dealt with leniently; Hazlitt reserved his fiercest criticism, but also his most heart-felt praise, for Coleridge. Coleridge was lauded for being a free thinker and an excellent talker. Yet, Hazlitt complained, Coleridge did not do much because his huge capacity also made him startlingly aware.

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104 Hazlitt and Sarah Stoddart had been divorced under Scottish law in Edinburgh in 1822. For analyses of this period of Hazlitt’s life, see Stanley Jones, Hazlitt: A Life (Oxford, 1989), pp. 319ff, 343, 359ff, and Ashton, Life of Samuel Taylor Coleridge, p. 360.
of how trifling his contribution would be. Thus, ‘Persons of the greatest capacity are
often those, who for this reason do the least; ... It is not merely that the mind is not
capable of the effort; it does not think the effort worth making.’ All Coleridge did in
consequence was to talk and talk, instead of acting upon any of his ideas. Hazlitt gave
full force to the depth of his disappointment with the man whom he believed might have
accomplished much: one who had once ‘hailed the rising orb of liberty’, and had
intended to establish his Pantisocracy, (his vision of a community in which all should
share equal power), ‘across the wave with Southey and others to seek for peace and
freedom’. But ‘Alas! Frailty, thy name is Genius!’ What grieved Hazlitt was the fact
that all that had become of this ‘mighty heap of hope, of thought, of learning, and
humanity’, was failure precipitated by swallowing ‘doses of oblivion’. When Liberty
‘(the philosopher’s and the poet’s bride) had fallen a victim ... to the murderous
practices of the hag, Legitimacy’, Hazlitt’s hopes of revolution and a reconstitution of
society based on the principles of liberty, instituted and guided by genius, were dashed.
Hazlitt asserted that Coleridge was still capable of rescuing people from the spectre of
legitimacy, and restoring them to the fields of liberty, but he was presently unable
because of the addling and stupefying effects of opium, and because of the habit he had
degenerated into of talking instead of doing. Coleridge, Hazlitt claimed, had seen the
task ahead of him, but had chosen to do and write nothing, rather than risk being
drowned in the attempt to write at all.

During this period, the types of person to whom Hazlitt appended the title of ‘genius’
began to alter. His conception, like Coleridge’s, had never been related to class, but
now it appeared to take on more dangerous, unsavoury aspects than the simply radical
interpretation he had attached to figures such as Napoleon and Coleridge in his youth.
A great deal of Hazlitt’s writing from 1814 was theatrical criticism, reviewing
productions in London and critiquing specific actors’ performances. In his youth he had
delighted in watching the gentlemanly John Kemble, referring later to that being the
‘religion’ in which a generation of theatre-goers had been brought up. Yet during the

108 Hazlitt, Spirit of the Age, pp. 72-73.
109 Hazlitt, Spirit of the Age, p. 73; Hazlitt’s italics.
110 Hazlitt, ‘Mr. Kemble’s King John’, The Examiner (7 December 1816), in Hazlitt, A View of the
English Stage (1818); in Hazlitt, Selected Writings of William Hazlitt, III: ‘A View of the English Stage’,
1810s, Hazlitt witnessed the rise of a new actor, Edmund Kean. Kemble’s flaws were suddenly exposed. Hazlitt wrote, ‘We wish we had never seen Mr. Kean. ... We used to admire Mr. Kemble’s figure and manner, and had no idea that there was any want of art or nature.’ The very types of performance of Kemble as scholar-actor, which had previously won him critical acclaim, now seemed unrealistic and false. Hazlitt’s gripe with Kemble’s performances was that they lacked emotion, realism and dramatic urgency; he certainly looked the part, and was capable, but did not engage on the levels Hazlitt’s exacting standards now demanded. Thus in his review of ‘Mr. Kemble’s Sir Giles Overreach’, in The Examiner, in 1816, Hazlitt described Kemble’s unsuitability to acting the part:

‘He is, in fact, as shy of committing himself with nature as maid is of committing herself with a lover. All the proper forms and ceremonies must be complied with, before ‘they two can be made one flesh.’ Mr. Kemble sacrifices too much to decorum. He is chiefly afraid of being contaminated by too close an identity with the characters he represents. This is the greatest vice in an actor, who ought never to bulk his part.’

In the bitterness of adulthood Hazlitt was bowled over by Edmund Kean, a low-born rogue, who stridently publicised his radical political beliefs off-stage. Seeing him for the first time in the role of Shylock in 1814, Hazlitt later recalled, ‘Mr. Kean’s appearance was the first gleam of genius breaking athwart the gloom of the Stage, and the public have since gladly basked in its ray, in spite of actors, managers, and critics.’ Although not blind to Kean’s faults, Hazlitt deemed the appearance of proletarian Kean showed the degree of passion and communion with nature that the performances of the esteemed gentlemanly-scholar Kemble lacked. This was another form of disembodiment: Kean’s genius was to lose himself into the part, to feel and be the person he portrayed, rather than adhere to the classical rules of acting.

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111 Hazlitt, ‘Mr. Kemble’s King John’, p. 178.
113 Grayling, Hazlitt, p. 168.
114 William Hazlitt, Preface to his A View of the English Stage (1818), in Hazlitt, Selected Writings of William Hazlitt, III, pp. 3-7; p. 5. Hazlitt first saw Kean as Shylock on 27 January 1814; see Hazlitt, ‘Mr. Kean’s Shylock’, in Hazlitt, Selected Writings of William Hazlitt, III, pp. 9-10.
115 Hazlitt, Preface to his A View of the English Stage, p. 6.
Communities of Genius

Yet where Coleridge and Hazlitt came to differ most was in their vision of the virtues of working as solitary individuals or in communities. Hazlitt's conception of genius was as a solitary entity. For Hazlitt, corporate bodies subsumed the value of each individual: they brought about the corruption of purity, where rules overtook the pre-eminence of genius, and stagnant learning dominated. Genius as a result was smothered, its freedom of expression heavily compromised. As Hazlitt viewed it, 'The unavoidable aim of all corporate bodies of learning is not to grow wise, or teach others wisdom, but to prevent any one else from being or seeming wiser than themselves'. He held a particular odium for academies for the Fine Arts, especially the Royal Academy, where, 'The end is lost in the means: rules take the place of nature and genius'. In such locations as the Royal Academy, originality and enthusiasm were stopped and made to stagnate: 'The air of an academy, in short, is not the air of genius and immortality; it is too close and heated, and impregnated with the notions of the common sort.' A man steeped in such an atmosphere was then no longer 'open to the genial impulses of nature and truth'. Hazlitt believed this was borne out by the fact that those he considered to have been the three greatest English painters, Reynolds, Wilson and Hogarth, had not been members of academies.¹¹⁶

For Coleridge however, the solitary radical was not a desirable conception; he could not, by himself, achieve the unity which he had discussed in his Biographia. Instead, Coleridge envisaged a role for geniuses working not as separate individuals but as part of a collective political effort, geared towards reform. Coleridge believed that a collection of geniuses, each individual a genius in one of a wide range of fields, could effect unification in certain, often conflicting, areas of society. The result of Coleridge's deliberations on this point, and what may be viewed as the culmination of a life directed to working out the place of unity for the individual and the community at large, was his On the Constitution of Church and State, a synthesis of his political and

theological work that he began to write in 1825, but which was published in 1829.\textsuperscript{117}

Coleridge believed that unity was to be effected in the state through collecting together the fragments of human knowledge as possessed in individuals, laying particular emphasis on the role of the clergy in this new model of social order. Thus in his \textit{Church and State}, Coleridge proposed a system of revolutionising national education and creating an intelligentsia, for which he coined the term 'clerisy'. Coleridge’s ‘\textit{CLERISY of the nation, or national church}’ was a learned order drawn from all backgrounds and fields: artists, scientists, theologians, professors and sages of medicine, law, music, military, civil architecture, and mathematics; ‘in short, all the so called liberal arts and sciences, the possession and application of which constitute the civilization of a country, as well as the Theological.’ The theological element was for Coleridge of primary importance which, ‘was, indeed, placed as the head of all; and of good right did it claim precedence.’ Coleridge argued that this was because, ‘under the name of \textit{Theology, or Divinity}’ were contained the interpretation of languages, the revolution of race and nation, man’s history, his ethics, logic, ‘and lastly, the ground-knowledge, the prima scientia as it was named,—\textit{PHILOSOPHY}, or the doctrine and discipline of ideas.’\textsuperscript{118} These men were to serve as a body, as anchors of society, and there could be ‘no order, no harmony of the whole, without them.’\textsuperscript{119} He suggested the action of this clerisy, this third party, with the King as its supreme head,\textsuperscript{120} would be the way in which to achieve control over society, reconciling the opposing positions of ‘progress’ and ‘permanence’. For Coleridge at the end of his life therefore, the highest intellects were geared towards unification. As Coleridge’s nephew and son-in-law, Henry Nelson Coleridge, recorded two years later, Coleridge believed that

‘as one of the most characteristic and infallible criteria of the different ranks of men’s intellects, observe the instinctive habit which all superior minds have of endeavouring to bring, and of never resting till they have brought, into unity the


\textsuperscript{118} Coleridge, \textit{Church and State}, pp. 46-47.


\textsuperscript{120} Coleridge, \textit{Church and State}, p. 83.
scattered facts which occur in conversation, or in the statements of men of
business.\footnote{121}

To circumvent the problems attached to discussing ‘Church’ and ‘State’ in temporal
terms in his work of 1829, Coleridge instead discussed both institutions as Platonic
ideas.\footnote{122} He argued that the unity of the state consisted in the interdependence of the
two great opposing interests of every state, its permanence and progression. The
permanence of a state was associated with the land and the landed classes; and its
progression with the actions of the manufacturing, distributive, mercantile and
professional classes. Branches of the clerisy had developed into the representatives of
the opposing camps of progress and permanence: the learned in law, medicine and
architecture, for instance, had gradually ‘contributed to form under the common name
of Professional’. Yet two distinct functions did not imply or require, in Coleridge’s
conception, two different functionaries, since the perfection of each could require the
unity of both in the body of the same person.\footnote{123}

Coleridge identified the highest form of human development in each field of human
experience that comprised the clerisy as providing the flexible, compromising power by
which the whole system of society might be contained. The clerisy was to act as a
vertical and horizontal mediator to intercede within society, between the forces of
progression and permanence, but also to mediate between the world and God.\footnote{124} In this
way it would keep the whole system in unity, reconciling opposing powers. Coleridge
was thus articulating the social equivalent of the kind of ideas from the aesthetic theory
he had described in his \textit{Biographia}. The clerisy as a body fulfilled an identical role to
Coleridge’s conception of the imagination, aimed at achieving unity, just as the
imagination ‘forms all into one graceful and intelligent whole.’\footnote{125}

Coleridge’s system, delineating the new role of genius within society, was based on an
intellectual hierarchy, not on the egalitarian and democratic concepts he had expounded
in his youth. He made no allowances for men who were lacking in intellectual ability to

\footnote{121}Coleridge, \textit{Specimens of the Table Talk}, ed. H. N. Coleridge, II, p. 18: (27 December 1831).
\footnote{122}Coleridge, \textit{Church and State}, p. 77.
\footnote{123}H. N. Coleridge, Preface to Coleridge, \textit{Church and State}, pp. 192, 194.
\footnote{125}Coleridge, \textit{Biographia}, p. 185.
have any part in the governance of the state. Arguing that the attempts made ‘to popularize science’, only resulted in ‘its plebification’, he insisted that, ‘It is folly to think of making all, or the many, philosophers, or even men of science and systematic knowledge.’ However, in his view, it was ‘duty and wisdom to aim at making as many as possible soberly and steadily religious’, since the morality the state required of its people ‘for its own well-being’, could only exist for the people in a form of religion. Instead, the true philosophy, ‘or the power and habit of contemplating particulars in the unity and frontal mirror of the idea—this in the rulers and teachers of a nation is indispensable to a sound state of religion in all classes.’ This élite existed to reinforce a system of social control based around the idea of a transcendent God: ‘In fine, Religion, true or false, is and ever has been the centre of gravity in a realm, to which all other things must and will accommodate themselves.’

Coleridge had thus heavily revised his views. Far from his early radical days where Hazlitt had viewed his as the genius to return liberty to the people, Coleridge was now advocating a form of conservative authoritarianism. The power of genius for Coleridge now lay in legitimate, conservative collectives. This authoritarianism had taken many forms in the period since the French Revolution, yet there was a common theme articulated by the conservative theorists, one that stressed that men were not capable of ordering themselves. Coleridge’s thought needs to be seen in the context of this authoritarian view of life, personally submitting to an external authority instead of choosing an ideal of personal liberty. As Stephen Jacyna has shown, there was a considerable transcendental element in conservative philosophy in its search for a supramundane rationale for earthly powers. Christianity proved a popular device of the social philosophy of the English Romantics, being seen as a means to effect and maintain social stability, which proved attractive to nineteenth-century governments.

Writing in the Westminster Review in 1824, the Unitarian minister and author William Johnson Fox (1786-1864) observed that, since the French Revolution and ‘the alarm excited by that catastrophe’, Christianity ‘has been warmly patronised in the hope that it would help to keep people quiet, teach them to pay their taxes without grumbling, and

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126 Coleridge, Church and State, pp. 67-70; Coleridge’s italics.
restrain them from subverting the established order of things.' It was in this context therefore that Coleridge sought to replace scientific materialism by reinstating religion, in the form of a Christian interpretation of Neo-Platonism, as the focus of the human existence, in the hope of providing a remedy to class conflicts and jealousies.

In the period of conservative reaction, the Tory religion was moulded so as to rebut the materialistic view of nature and God favoured by the Jacobins and which underpinned their political programme. The Tory model of religion was orthodox Anglicanism, the only religion recognised by the state at that time. It was authoritarian and stood in direct contrast to the kind of radical religion of the Protestant Dissenters, the Methodists, Unitarians and Quakers, who, under the 1673 Test Act, were excluded from public office for their non-conformity. Alarmed by Napoleon's 1801 Concordat, whereby Catholicism was restored on condition that his government should appoint the bishops and through them control the priests and the congregations, Coleridge began to express doubts 'as to the effects & scriptural propriety of this (supposed) alliance of Church and State'. But Coleridge was concerned that religion should not be subordinated to the whim of the State for reasons of sheer political expediency. Comparing what he perceived to be the dangerous French scheme of religious control and the less malevolent English church/state relations that he had once attacked in his sermon at Shrewsbury in 1798, led Coleridge to remark that his previous objections to the established church in England 'were wholly removed'.

Coleridge sought to provide a system whereby peaceful reform of the politically unpopular, socially exclusive and administratively corrupt Church of England could be effected. He proposed a system that would avoid the stalemate of reactionary Toryism, in which many of his contemporaries, including Southey and Wordsworth, were now mired. In direct contradiction of the statements Hazlitt had heard him make in Shrewsbury in 1798, Coleridge insisted that emancipation should occur to bring unity, not in order to achieve separation – whether in terms of religion, or nationalities.

131 Jacyna, 'Immanence or transcendence', p. 324.
Coleridge had feared in 1811 that the Catholic emancipation was ‘the stepping-stone to separation’, and was a potential ‘engine to a repeal of the Union’. For Coleridge, maintaining unity in the ‘national civilization’ was an essential action to be performed by the new body of geniuses, the intellectual cream, that he proposed. He saw its responsibilities as lying

‘in producing and re-producing, in preserving, continuing and perfecting, the necessary sources and conditions of national civilization; this being itself an indispensable condition of national safety, power and welfare, the strongest security and the surest provision, both for the permanence and the progressive advance of whatever (laws, institutions, tenures, rights, privileges, freedoms, obligations, &c. &c.) constitute the public weal’.

As part of an address to parliamentary leaders of the Liberalists and Utilitarians, Coleridge continued that these responsibilities would only be fulfilled adequately by ‘a permanent, nationalized, learned order, a national clerisy or church’, which

‘is an essential element of a rightly constituted nation, without which it wants the best security alike for its permanence and its progression; and for which neither tract societies nor conventicles, nor Lancastrian schools, nor mechanics’ institutions, nor lecture-bazaars under the absurd name of universities, nor all these collectively, can be a substitute. For they are all marked with the same asterisk of spuriousness, shew the same distemper-spot on the front, that they are empirical specifics for morbid symptoms that help to feed and continue the disease.’

Conclusion

Coleridge’s ideas had a lasting impact in the writings of later thinkers in the nineteenth century. Indeed, even before his death, the anonymous author of a favourable review of Blake suggested that

‘we have a confident hope that Coleridge, Blake, and Flaxman are the forerunners of a more elevated and purer system, which has even now begun to

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136 Coleridge, *Church and State*, p. 53.

137 Coleridge, *Church and State*, pp. 68-69.
take root in the breast of the English nation; they have laid a foundation for future minds—Coleridge, for the development of a more internal philosophy—Blake and Flaxman, for a purer and more ennobling sentiment in works of art.\footnote{Anon, 'The inventions of William Blake, painter and poet', \textit{London University Magazine}, II (March 1830), 318-23: quote p. 318.}

Coleridge's \textit{Church and State} enjoyed a wide influence, influencing three distinct movements of nineteenth-century religious thought: the Broad Church Movement, the Oxford Movement, and Christian Socialism; as well as John Stuart Mill, Thomas Arnold, and W.E. Gladstone.\footnote{Coleridge, \textit{Church and State}, pp. Iviii-lix, lxii-lxiii.}

By the late 1820s, Coleridge had transformed his views on the way to bring about good government in society. Rejecting his youthful radicalism, which had separated church and state, Coleridge wedded genius to the idea of legitimacy. It was the association of genius with the radicalism that became widely unpopular in the wake of the French Revolution, where the vision of liberty being courted appeared anarchic and united with social disorder, which had prompted Coleridge to alter his views. By 1829 he came to favour a system of reform, based on his philosophy of unity. When embodied in his idea of the clerisy, this would establish a Christianised unity in the social and political world, as well as in nature itself, holding the entire system of opposing forces together. By acting as the mediator between the earthly and spiritual realms, as well as between the conflicting forces of progress and permanence within society itself, it would hold the entire system in tension. Coleridge's conception thus insisted on the necessity of devising a body that would be able to manage the hierarchy effectively, while not permitting any one part to dominate.

Thus the possession of the unifying power of the imagination, an essential part of his conception of genius, involved certain political responsibilities for the genius, which Coleridge devolved onto an élite community of clerics and intellectuals. By the end of the 1820s it was not, for him, the solitary revolutionary conception favoured by Hazlitt, because genius in those terms was radical and redolent of tyranny; instead it was the conservative political entity, whose sphere of operation was in the collective. The individual genius wielding any sort of power alone, as Napoleon, the god of Hazlitt's
idolatry, had done, was at odds with the nature of English political life by the end of the 1820s. Coleridge had devised a philosophy that would influence groups through the nineteenth century. He had helped to establish a precedent for collective effort in intellectual endeavour, swinging away from the conceptions of the radical solitary individual towards the community as a united whole.
CHAPTER 3: GENIUS AND THE SCIENTIST

Introduction

From the 1830s onwards, the meaning of 'genius' was again redefined by certain members of the British scientific élite. At the core of this re-definition is the question of what type of individual was capable of conducting accurate, truthful, scientific research. The first half of this chapter examines this shift, drawing principally on the work of the Cambridge savant, mathematician, historian and philosopher of science, Rev. William Whewell (1794-1866). It was Whewell, a 'massive presence' in the British mathematical and philosophical scene,¹ who coined the term 'scientist' at the 1833 meeting of the British Association, in response to Coleridge’s challenge that those engaged in examining Nature could not be termed 'philosophers'.²

In the light of Whewell’s influential work, the second half of the chapter examines the place of 'genius' in the scientific debates concerning man’s place in nature in the second half of the nineteenth century. The methodological ideas found in Whewell's philosophical works influenced the arguments and research of subsequent nineteenth-century scientists such as Charles Darwin and Charles Lyell.³ This chapter also sets the hereditarian ideas of the scientist, statistician and half-cousin of Darwin, Francis Galton (1822-1911), in the context of what may loosely be termed 'Darwinian' thought in the 1860s and 1870s. In doing so, this chapter demonstrates the shifting attitude within the British scientific community to what the Enlightenment and Romantic authors considered above had deemed the defining faculty of genius: the imagination.

Whewell and Élite Science

Born the eldest son of a master-carpenter in Lancaster in 1794, and rising to take the Mastership of Trinity College Cambridge in 1841, the trajectory of Whewell’s life exemplifies the Victorian enthusiasm for stories of individual achievement through ability, application and hard work. Going up to Cambridge in 1812, and striking up friendships with John Herschel (1792-1871), later an eminent astronomer, and the mathematician Charles Babbage (1792-1871), Whewell achieved the rank of Second Wrangler in 1816 and embarked on an academic career. A Fellow by 1817 and Assistant Tutor in 1818, he wrote a well-received textbook concerning mechanics in 1819 (which ran through several editions), before being appointed a mathematical lecturer at Trinity in 1820. He was ordained in 1825, and throughout the 1820s pursued diverse interests ranging from geology and mineralogy to architecture, and was influenced both by Romantic thought and neo-Kantian idealism; indeed, Whewell believed Kant to be ‘a great metaphysical genius’. By the 1830s Whewell’s sphere of influence had extended beyond Cambridge, not least through his involvement in devising the philosophical grounding of the new British Association for the Advancement of Science, an eclectic and peripatetic organisation established on a natural theological approach to science, which was founded in 1831.

In taking Whewell’s ideas on the scientific method and what this meant for the idea of genius as part of its focus, this chapter necessarily discusses a particularly élite form of scientific thought within British culture. Whewell was one of a group of Broad Church or Liberal Anglican advocates of moderate reform, identified by Jack Morrell and Arnold Thackray as ‘Gentlemen of Science’. Devotees of religious toleration and latitudinarianism, they were based largely around Trinity College Cambridge, Susan Faye Cannon’s ‘Cambridge network’. Although they were ‘but a competing faction

within early Victorian culture',\(^8\) this élite played a highly significant part in laying the philosophical groundwork of collective British science. Though not representative of the vast array of scientific activity at the time that catered for all social levels,\(^9\) this group, with Whewell prime among them, wielded significant influence in the establishment of what they believed to be a proper scientific method.

**Defining the Scientific Method**

Whewell was one of a number of educated men during this period interested in scientific method and the nature of achievement. Whewell’s work formed part of the mounting attention within élite scientific thought in the 1830s being placed on the philosophy of the scientific method, with entire books rather than simply chapters or prefaces being devoted to an exposition of the subject.\(^{10}\) Defining a philosophy of method offered a focus of unity for the scientific community, and a point of consensus in an age of increasing specialisation.\(^{11}\)

This interest is evident in Whewell’s two key methodological works, those he regarded as the unifying core of his entire system of thought.\(^{12}\) The first of these was his well-received three-volume *History of the Inductive Sciences* (1837), the work on which his nineteenth-century biographer, Isaac Todhunter, believed ‘the reputation of Dr.

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\(^{8}\) Morrell and Thackray, *Gentlemen of Science*, p. 21.


Whewell is perhaps generally supposed to rest'. This was followed in 1840 by the publication of the related two-volume *Philosophy of the Inductive Sciences* (1840), which elicited widespread criticism. In these key works, both wide-ranging sweeps of the development and the methodologies of the scientific disciplines, synthesising a wealth of scientific reading, Whewell adopted a role as metacritic of the development and progress of science.

But this was very much an Anglican elitist vision of science. Although during this period the institutional dominance of Anglicanism was challenged in various forms, for instance by the Evangelical party of William Wilberforce, in the repeal in 1828 of the Tests and Corporation Acts, which had excluded Dissenters from municipal and other offices, and by the passing of the 1829 Catholic Emancipation Act, British institutional life continued to be dominated by at least nominal Anglicans. Working in this context, Whewell grounded his scientific methodology in the natural theological tradition of Liberal Anglicanism, which was the typical approach taught to undergraduates, natural theology and moral philosophy being part of the standard university curriculum. For at least the first five or six decades of the nineteenth century, natural theology provided the general content for the debate on man’s place in nature. With its emphasis on reason, natural theology, as both John Brooke and Robert Young have perceived, performed a unifying role within the intellect of those who had a commitment to both science and religion, two interests that might otherwise have remained unrelated. Used to mediate between different expressions of religious faith, natural theology was employed as a baseline, a basic principle, of God’s presence in the

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Whewell’s work also drew on a belief in the existence of natural laws which would be revealed by a disciplined observance of an identifiable scientific method. The basis of modern scientific method, natural laws were believed to govern the processes of life, not only in nature but also in civil society. Commitment to natural laws meant the acceptance that reality possesses an overarching order, the pattern of which was discernible in both the physical and moral, or social, spheres. The moves to social, political and scientific reform during the late 1820s and 1830s were deeply embedded in the belief, one that emerged in the writings of theorists of civil society in the seventeenth century, such as Thomas Hobbes, that as the natural world was organised according to law, so too reform of parliament should take place, not in the upheaval of revolution, but through the natural processes of law. As a neo-Kantian rooted in these beliefs, Whewell espoused the view that laws arose through the action of the rational processes of the mind, rather than empirically through sense-experience. In his theory of the ‘proper’ scientific method, Whewell proposed that ‘good’ science arose from the action of reason and the imagination, which provided the framework in which to examine the host of facts gleaned from nature by the inductive method. Applying hypotheses to natural facts and the subsequent colligation of those facts could, Whewell believed, lead to the exposure of a natural law. It was through the gradual process of discovering natural laws that Whewell’s ultimate aim, the discovery of the order of nature, might be achieved. This belief in the existence of laws underwriting nature as well as society was particularly enduring, as is shown by the widely read History of Civilization in England (vol. 1: 1857; vol. 2: 1861) by the historian Thomas Henry Buckle (1821-1862). Relying on a wealth of sources, Buckle sought to apply the principles of natural law to history, and expounded the belief that history could be scientifically reduced to a series of mathematical formulae: ‘In regard to nature,’ Buckle declared,

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‘events apparently the most irregular and capricious have been explained, and have been shown to be in accordance with certain fixed and universal laws. This has been done because men of ability, and, above all, men of patient, untiring thought, have studied natural events with the view of discovering their regularity: and if human events were subjected to a similar treatment, we have every right to expect similar results.’

Besides appealing to notions of natural law, Whewell also rooted his methodology in a particular form of scientific ideology: Newtonianism. In 1833, when the British Association meeting was held at Cambridge, Whewell had taken charge of reconstructing the philosophical basis of the British Association along Newtonian lines. Before Whewell’s reforms, the philosophical basis for the British Association, as developed initially by the founder of the York Philosophical Society, Rev. William Vernon Harcourt (1789-1871), was grounded in the ideas of the English natural philosopher Francis Bacon (1561-1626). Drawing on Bacon’s *Advancement of Learning*, *New Atlantis*, and *Novum Organum*, Harcourt based the working of the British Association on Bacon’s philosophy of induction. Representing science as accessible, this philosophy advocated the building up of scientific knowledge using reason from the accumulation of a vast array of facts, as opposed to reasoning deductively and forming testable hypotheses. But this vision of science was seen as naïvely Baconian by the élite at Cambridge and by metropolitan savants. In a context of scientific reform, with the increase of writings about what constituted proper methods of scientific inquiry, came increasing criticism of Bacon’s stipulations for a pure inductivist approach.

Employing what was seen to be a more sophisticated scheme derived from Newton, Whewell replaced Harcourt’s naïve inductivism with one that privileged mathematics as the basis of science. Whewell’s reworking of the hierarchy of science at the British Association reflected this philosophy: Newtonian astronomy and mathematics, abstract

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physical sciences that had undergone something of a revival in Britain from the 1820s, formed the pre-eminent Section, taking precedence over all other scientific disciplines. Newtonian mathematics therefore took centre stage as the dominant scientific ideology upon which to base all scientific investigation. Whewell subsequently took up the theme of the centrality of mathematics to science and education in his publications, particularly his *Astronomy and General Physics Considered with Reference to Natural Theology* (London, 1833), *Thoughts on the Study of Mathematics as Part of a Liberal Education* (Cambridge, 1835), and *On the Principles of English University Education* (London, 1837).

For Whewell, mathematical reasoning stood at the heart of all science. Only on the basis of steadily accumulated inductive observations and experimental results could true mathematical generalisations be created securely. In his Bridgewater treatise of 1833, one of eight essays written by several authors during the 1830s to establish new links between nature and revealed knowledge, Whewell proposed that there were only two mature, exact and perfect scientific disciplines, mechanics and astronomy, ones in which varied and extensive data had been generalised into simple mathematical laws, replacing theology as the queen of the sciences. It was towards these evidences of scientific perfection that all other sciences aspired. Being without such laws, other disciplines such as meteorology and chemistry were merely imperfect or infant sciences.

Whewell’s philosophy of induction, as laid out in his *History*, was hence fundamentally different from that of Bacon, and reveals Whewell’s distinctive form of natural theology. In contrast to the stress placed on reason in books such as *Natural Theology* (1802) by William Paley (1743-1805), reason alone was not a sufficient base in

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25 David Philip Miller, 'The revival of the physical sciences in Britain, 1815-1840', *Osiris*, second series, 2 (1986), 107-134.
26 Morrell and Thackray, *Gentlemen of Science*, pp. 27, 267, 270. For further on the background of the ascendancy of mathematics as a discipline at Cambridge, see John Gascoigne, *Cambridge in the Age of the Enlightenment: Science, Religion and Politics from the Restoration to the French Republic* (Cambridge, 1989), especially pp. 270-299 on the context from the late eighteenth century to the 1830s.
30 Morrell and Thackray, *Gentlemen of Science*, p. 274.
Whewell’s view for the knowledge of nature. His view of nature was heavily qualified by factors drawn from what he considered to be the key elements of a Christian theology, insisting on the importance of revelation. Instead of relying solely on strict Baconian induction, amassing a wealth of facts and allowing Nature to speak through them, Whewell insisted on the importance of an ability in devising ideas. Well-formed, mature natural sciences, for Whewell, were composed of two bodies of knowledge: the ‘pure’ articulation of a Kantian Fundamental Idea on one hand, which interpreted the body of induced empirical knowledge on the other. Summarising what he believed to be the lessons of an investigation into the history of scientific disciplines, Whewell asserted that ‘to the formation of science, two things are requisite;—facts and ideas; observation of things without, and an inward effort of thought; or, in other words, sense and reason.’ Whewell suggested that true knowledge was the interpretation of nature, and thus required ‘the interpreting mind’ (reason), and nature (detected by the senses) for its subject:

'Real speculative knowledge demands the combination of the two ingredients;—right reason, and facts to reason upon. It has been well said, that knowledge is the interpretation of nature; and thus it requires both the interpreting mind, and nature for its subject; both the document, and the ingenuity to read it aright.'

Whewell thus insisted on the necessity of hypothesising, where imagination and genius provided ideas that then bound together the facts that were presented by observation into general laws (the process of colligation). When these general laws were subsequently colligated into one higher generalisation, scientific discoveries were achieved.

The Discoverer and the Emergence of Objective Science

Whewell’s History and Philosophy of the Inductive Sciences mark a change in the usage of ‘genius’ within British science. Although Whewell did continue to use the word ‘genius’, this was only as a function of a larger concept, the discoverer, or the individual capable of initiating change within science. Whewell was a particularly active

34 Yeo, ‘Idol’, p. 274.
neologist, coining a range of scientific words, including 'anode', 'cathode' and 'scientist'. It is famously recorded that Coleridge denied use of the term 'philosopher' to men of science, deeming it 'too wide and too lofty a term', at a time when 'philosophy' was narrowing in meaning, largely excluding the natural philosophy in which men of science were engaged. However another possible reason for the gradual abandonment of 'philosopher' is that it was a term reminiscent of the French word 'philosophe', which was used to describe a notoriously atheistic type of thinker, and not men of science. Such associations, as Chapter 2 indicated with the politicised idea of genius, were inappropriate in a post-Napoleonic war reformist Britain, where men of science professed a belief in natural theology as the underlying, unifying core of their scientific activity. But 'scientist' was taken on reluctantly: it was a neologism 'not generally palatable' to the members attending British Association meeting in 1833 at which Whewell had proposed it, but for want of a more suitable term, it remained. Thus Whewell employed it in his *Philosophy* seven years later, as a term broad enough to encompass and describe the general nature of the mathematician, physicist or naturalist. However, Whewell spent more energy delineating other terminology, terms that would distinguish between types of scientific practice. Studying Whewell's division between the mass of general investigators and the discoverer reveals a shift in the usage and meaning of the term 'genius'.

Continuing the arguments sketched in his *History*, Whewell downplayed the terminology of 'genius' upon which Davy had attempted to build the foundation for his lasting fame, and instead emphasised different qualities as necessary for proper scientific investigation. In doing so, Whewell recast eminent scientists in the role of the 'discoverer':

> 'the only persons who succeed in making great alterations in the language of science, are not those who make names arbitrarily and as an exercise of ingenuity, but those who have much new knowledge to communicate; so that the vehicle is commended to general reception by the value of what it contains. It is only eminent discoverers to whom the authority is conceded of introducing a

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37 See [Whewell], ‘Mrs Somerville on the connexion of the sciences’, pp. 58-61.
new system of names; just as it is only the highest authority in the state which has the power of putting a new coinage in circulation.\(^\text{39}\)

In describing the means by which progress in philosophical knowledge was achieved, Whewell drew out features that the scientific investigator should possess, many of which had previously been, especially from the Enlightenment period, prerequisites for the title of 'genius'. But for Whewell, science was not to be executed simply by the genius. Instead, Whewell overlaid some of the features of genius onto those characteristics that he deemed essential to perform the style of inductive method he proposed, giving a dualist methodology. The new instigator of change within science, for Whewell, was now the inductive 'discoverer'. Thus it was that 'invention, acuteness, and connexion of thought', qualities that Enlightenment authors had attributed to genius, 'are necessary on the one hand, for the progress of philosophical knowledge', which would complement, 'on the other hand, the precise and steady application of these faculties to facts well known and clearly conceived.'\(^\text{40}\)

For Whewell, being a scientist meant more than simply doing a job. Making the production of scientific knowledge contingent upon the character and behaviour, particularly the moral conduct, of the scientist involved, Whewell rendered scientific progress through discoveries as events that could only be achieved through the medium of the discoverer. But this was also linked to the sense that the ideal gentleman was a trustworthy man of honour, the highest accord being reserved for Christian gentlemen of moral integrity, built on a strong yet discreet faith.\(^\text{41}\) Ever since his Bridgewater treatise of 1833, Whewell had emphasised the sound moral nature of the 'great discoverer', contending that religious belief was not inconsistent with the character of the greatest men of science. Thus in the case of 'the great discoverer', Newton, 'the impression of a creating and presiding Deity was confirmed, not shaken, by all his discoveries', a detail that Whewell believed was so well known that it is almost

\(^{39}\) Whewell, Philosophy, I, p. lxxxi.

\(^{40}\) Whewell, History, I, p. 7.

superfluous to insist upon the fact.'\(^{42}\) He re-emphasised these qualities in his *History*, but proposed an expansive category of discoverer that incorporated elements of genius with other qualities.

Some of these other qualities that comprised Whewell’s scientific discoverer, were those that Whewell believed were able to compensate for deficiencies in natural talent. Hence Whewell was able to incorporate some eminent scientists who did not fit his template for the archetypal scientist completely. The astronomer Johannes Kepler, for instance, was not a naturally talented discoverer in Whewell’s opinion, yet this was not to detract from Kepler’s claims to being a discoverer:

‘One of the most important talents requisite for a discoverer, is the ingenuity and skill which devises means for rapidly testing false suppositions as they offer themselves. This talent Kepler did not possess: he was not even a good arithmetical calculator, often making mistakes, some of which he detected and laments, while others escaped him to the last. But his defects in this respect were compensated by his courage and perseverance in undertaking and executing such tasks’.\(^{43}\)

Thus not only was Whewell’s archetypal discoverer a man of invention and reason, he also possessed a moral dimension. The kind of ‘good’ or ‘moral’ science that Whewell promoted relied on a particular philosophy of knowledge, one that endorsed a Christian perspective of man’s ethical and intellectual character.\(^{44}\) Such an epistemology involved attributing further dimensions to the inductive discoverer, ones that were rarely acknowledged as features of genius. While acknowledging the debt England owed the chemist John Dalton (1766-1844) for his vast advances in chemistry, Whewell portrayed Dalton simply, as a humble discoverer:

‘Though Dalton’s discovery was soon generally employed, and universally spoken of with admiration, it did not bring to him anything but barren praise, and he continued in the humble employment of which we have spoken [as a

\(^{42}\) Whewell, *Astronomy and General Physics Considered with Reference to Natural Theology*, p. 315; see also Yeo, *Defining Science*, p. 120.

\(^{43}\) Whewell, *History*, I, pp. 414, 413.

\(^{44}\) Yeo, *Defining Science*, p. 177; and see pp. 176-205 for Yeo’s assessment of Whewell’s development of moral science.
teacher of mathematics in Manchester], when his fame had filled Europe, and his
name become a household word in the laboratory.'\textsuperscript{45}

Serving so assiduously at the altar of natural theology meant that even Dalton’s
Dissenting religious affiliation, Quakerism, was no bar to eventual institutional
recognition of his efforts: at the 1832 meeting of the British Association at Oxford,
‘that university had conferred upon him the degree of Doctor of Laws, a step the
more remarkable, since he belonged to the sect of Quakers. At all the meetings
of the British Association he has been present, and has always been surrounded
by the reverence and admiration for all who feel any sympathy with the progress
of science. May he long remain among us thus to remind us of the vast advance
which chemistry owes to him!’\textsuperscript{46}

Other authors, besides Whewell, emphasised the moral angle in respect to the mode in
which humans exercised their intellectual powers.\textsuperscript{47} During this period, a lack of the
requisite self-discipline pointed to character flaws, such as impatience and self-
indulgence, flaws that it was the duty of the investigator to master.\textsuperscript{48} Issues surrounding
the moral angle of self-discipline were addressed in works such as those of the Scottish
physician, John Abercrombie (1780-1844). His \textit{Inquiries Concerning the Intellectual
Powers and the Investigation of Truth} (1830), which ran to ten editions in as many
years, concerned the application of logical methods to science; his \textit{Culture and
Discipline of the Mind} (1837), which he gave as his inaugural address as Lord Rector of
the Marischal College and the University of Aberdeen in 1835, ran through six editions
by the end of 1837. In these works, based on ideas from the Scottish Common Sense
philosophers such as Thomas Reid and Dugald Stewart, who in turn had been
influenced by Bacon’s philosophy,\textsuperscript{49} Abercrombie emphasised that the proper use of the
Divine gift of reason was a moral duty, and not just a philosophical issue.\textsuperscript{50}
Abercrombie’s work highlights an increasing emphasis on moral mental discipline,
considering life’s ‘high duties and its solemn responsibilities,—and at the discipline of
the heart, from which springs a true and solid happiness which external circumstances

\textsuperscript{45} Whewell, \textit{History}, III, p. 152.
\textsuperscript{46} Whewell, \textit{History}, III, pp. 152-153.
\textsuperscript{47} Yeo, \textit{Defining Science}, p. 188.
\textsuperscript{48} Daston and Galison, ‘The image of objectivity’, p. 118
\textsuperscript{49} Yeo, ‘Idol’, pp. 260-266.
\textsuperscript{50} Yeo, \textit{Defining Science}, p. 188.
cannot destroy.' He continued, 'there is a power which is calculated to carry a man
through life, without being the sport and the victim of every change that flits across the
scene;—this power resides in a sound moral discipline, and a well-regulated mind.'

In the course of his construction of the morally upright individuals responsible for
furthering science, Whewell downplayed the importance of genius. Whewell used
histories of individuals as examples from which he extracted and generalised the
intellectual features he deemed common to discoverers. This feature, of moving
biography away from the centre of historical explanations about the development of
science, is one that Michael Shortland and Richard Yeo have identified as emerging by
the 1830s. Employing biography as a means to discover something more general
about the scientific method, Whewell smoothed over individual variations, enabling him
to establish the notion of the 'discoverer' as a type, an individual of the requisite
capability to execute the method of discovery Whewell detailed. He therefore
distinguished between the capacities involved in epoch-making discoveries that
established the intellectual framework of the disciplines, and those necessary for the
more routine scientific donkeywork that subsequently supported the discoveries.
Whewell viewed this period of entrenchment, the 'sequel' to the discovery or the
particular inductive epoch, as crucial, being the period during which the discovery
acquires 'a more perfect certainty and a more complete development [sic]' and is
'diffused to the wider throng of the secondary cultivators of such knowledge, and traced
into its distant consequences.'

Whewell hence delineated the characteristics common to discoverers, and separated
them from the mass of other scientific investigators who consolidated the discovery. In
Whewell's interpretation, science was a field of knowledge where discoveries were
made rather than acts of genius performed. In describing Davy and his successor
Michael Faraday (1791-1867), for instance, Whewell portrayed both as 'discoverers'
rather than as geniuses. Faraday's rise to scientific success has been well-documented
by historians who have sought to demonstrate the paramount importance of his

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Sandemanian faith in his reserved and humble approach to both social engagement and his eschewal of worldly position and honour, viewing scientific inquiry as the humble attempt of God’s servants to understand creation. But Whewell noted no such differences of approach between Davy and his protégé. Discussing Davy’s rise to scientific fame, Whewell commented, ‘he rose rapidly to honours and distinctions, and reached a height of scientific fame as great as has ever fallen to the lot of a discoverer in so short a time.’ Faraday received similar treatment: ‘The defects of Davy’s theoretical views will be seen most clearly by explaining what Faraday added to them. Michael Faraday was in every way fitted and led to become Davy’s successor in his great career of discovery.’ Whewell insisted that ‘great discoveries’ only occurred when the method of scientific investigation he described was followed:

‘We must not omit to repeat here the moral which we wish to draw from all great discoveries, that they depend upon the combination of exact facts with clear ideas. The former of these conditions is easily illustrated in the case of Davy and Faraday, both admirable and delicate experimenters. Davy’s rapidity and resource in experimenting were extraordinary, and extreme elegance and ingenuity distinguish almost every process of Faraday.’

In Whewell’s hands, all that had mattered to Davy at the end of his life, the model of the solitary inspired genius of his Consolations, a conduit for divinity, destined for immortality, was ignored, and the significance Davy had attached to his solitary achievements was diluted, enabling Whewell to make a more direct comparison between Davy and Faraday. Whewell’s generalising on the nature of the discoverer rendered the individual’s personality irrelevant. For Whewell the individual was incidental to the progress of a particular discipline: there was a particular form that scientific progress took, and whether an individual experienced success depended on how closely he conformed to Whewell’s model of a discoverer. Science was to an extent de-personalised by Whewell, with successful personalities being smoothed into one homogeneous type. It was in this way that Davy and Faraday, whose personalities

55 Whewell, History, III, pp. 162, 163, 170; Whewell’s italics.
and approaches to patronage and self-effacement were so different, could be viewed as equals in the face of science.

Employing a Whiggish, non-biographical, interpretation of the history of science, Whewell portrayed the development of science as progressing gradually by the uncovering of a series of natural laws by individual discoverers committed to the 'proper' scientific method. Similarly, in his first chapter of his *Principles of Geology*, a three-volume work published between 1830-1833, the geologist Charles Lyell (1797-1875), also expounded a Whiggish interpretation. In Lyell’s view, knowledge of the history of planet earth progressed not so much by the action of individuals as by their adherence to the discipline of geology, which Lyell was promoting. Believing the field of inquiry in nature to be 'inexhaustible', Lyell asserted that zoologists and botanists 'must entertain a desire of promoting geology' since

'some knowledge of its objects must guide and direct their studies. According to the different opportunities, tastes, and talents of individuals, they may employ themselves in collecting particular kinds of minerals, rocks, or organic remains, and these, when well examined and explained, afford data to the geologist, as do coins, medals, and inscriptions to the historian.'

The discipline and method of geology thus guided the formation of knowledge; the personality of the individual investigator was essentially irrelevant.

**Solitude vs. Collectivity**

In describing the ideal individual discoverer as part of his description of the scientific method as a more objective enterprise, Whewell stressed the importance of the collective endeavour in the sphere of science. Increasingly, the collective was being viewed as a place in which social élites could maintain elements of control, not only intellectually, over the investigations and the products of their particular disciplines, but also socially. Such an institution as the British Association, for example, representing bourgeois science and culture, relied heavily on voluntary support and individual zeal.

Its formation during a period of social and political unrest, not least the agitation over

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57 Morrell, 'Individualism and the structure of British science in 1830', p. 203.
the Reform Bill between 1831 and 1832, against the backdrop of an urbanising and industrialising society, represents a move by an élite to promote piecemeal, moderate reform, and conservative unity, binding together the widely scattered members of the middle and upper classes, and attempting to preserve of a certain form of traditional social leadership. It therefore served as an instrument of social order and cohesion, while smoothing over internal rivalries and tensions within the enlarged corpus of science. Similar developments have been identified in provincial commercial centres such as Bristol and Bath, where science, in the period between 1780 and 1830, was endowed with a conservative political dimension, being one of the tools used by confident and powerful local élites to display their domination, through the development of scientific languages and institutions.

In his works, Whewell’s conception of the discoverer and his place within a scientific community was rooted in this conservative reactionary climate. Geoffrey Cantor has described Whewell as heir to both the rationalist and Romantic conceptions of history, which included employing a Romantic model of man that emphasised the role of the imagination. While such a characterisation is useful in explaining the points of similarity between Whewell’s History and that of other liberal Anglicans who emphasised the dominance of mental and moral characteristics, Cantor’s description ought to be modified. Whewell did not adopt the Romantic view completely. In extracting very specific features of genius to comprise the character of the scientific discoverer, Whewell’s conception owed nothing to the Romantic notion of solitary genius. Notions of solitude ran counter to the collective teamwork ethic that dominated the Baconian agendas of propagandists for collaborative science, based in such groupings as the British Association, as well as reflected in the rise of research schools. Bacon had stressed the importance of community, with the idea of the solitary becoming a victim of one of what Bacon termed a person’s ‘idols of the cave’: those mental peculiarities unique to each individual which needed to be kept in check.

58 Morrell and Thackray, Gentlemen of Science, pp. 8-11, 22; and Morrell, ‘Individualism and the structure of British science in 1830’, p. 188.
60 Geoffrey Cantor, ‘Between rationalism and Romanticism’, pp. 69, 75-77.
61 Fara, Newton, pp. 220-222.
and corrected by social intercourse. Yet Bacon believed that social discourse concerning science had its own problems, ones that, in his view, might only be overcome by the discipline of a method, rather than the particular qualities and talents of individuals. It was this legacy that Whewell reworked, giving a new importance to the characteristics (but not specific personalities) of the discoverer, particularly the imagination, a faculty which, Whewell believed, could transcend method.\(^\text{63}\)

There was a long tradition of viewing the savant as solitary, assuming a link between the savant’s ability to reveal truths about the natural world and his dislocation from the distractions of political and social life. As Dorinda Outram’s work on the French naturalist Georges Cuvier (1769-1832) has shown, solitude could be used as part of a strategy of power, and for Cuvier stressing the apartness of the natural philosopher was a means to become independent of political and commercial concerns.\(^\text{64}\) Solitude was employed as an intellectual resource, and became viewed as a mark of superiority.\(^\text{65}\) In keeping with this interpretation, Newton’s French biographer, Jean-Baptiste Biot, emphasised Newton’s solitude. Discussing Newton’s preparations of the *Principia*, Biot claimed that, ‘It was only by the uninterrupted efforts of solitary and profound meditation, that even Newton was able to unfold all the truths he had conceived, and which were but so many deductions from his great discovery.’\(^\text{66}\)

In England however, as stated explicitly in the writings of Henry Brougham in the 1820s, there is evidence to show that this invocation of personality was refuted. This suggests a rejection both of Cuvierian ideas of personality, and of some ideas of the writers of the Scottish Enlightenment Common Sense Philosophy tradition, who had advocated a secluded place for the interaction between the philosopher and nature. One

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\(^{63}\) Yeo, *Defining Science*, pp. 135,136,163.


such philosopher, Dugald Stewart, in his *Philosophy of the Active and Moral Powers* (1828), warned of the distorting effects of the artificiality of commercial life, where 'the curiosity is too deeply engrossed by the productions of human skill and industry to have leisure to follow its *natural* direction.' The 'moral impressions' to which Stewart referred, 'never fail to revive when we retire from the haunts of men to converse with nature in solitude'.67 The Cuvierian solitary model was never activated in British debates on science, the solitude ideal itself being rarely advanced in early nineteenth-century Britain without qualification.68

But, as Chapter 2 proposed, the problems over the association of genius with solitude ran deeper than simply being antagonistic to the collective ideal. In some way the idea of solitude was radically transformed in such a way that rendered it unacceptable terminology for the scientific community. Instead of appealing to the Cuvierian notion of solitude, the idea of a withdrawal from society as the basis of knowledge was supplanted in Britain by the Romantic trope of the creative individual who actively opposed the dominant social order, and as such ran counter to the spirit of science.69 Texts such as Wordsworth's controversial *The Excursion*, with its stress on inward personal resources, contrasted the Solitary, the failed revolutionary, with an appeal to a more traditional form of society based on communities. Solitude for the poet within Britain during the 1820s was seen in negative terms, as narcissistic, cowardly, immoral or self-indulgent. A new era of introversion in the early 1820s had marked the emergence of the artist as a recognisable public phenomenon, identified as a lonely, unhappy individual, but one who was distinguishable from the commonality by his genius.70 The idea of the solitary genius, unhappy and at war with traditional society, was one to which the scientific reformers of the post-war reforming Britain could not concede. In Britain, the member of a collaborative effort, devoted to furthering scientific knowledge using the appropriate inductive method, replaced the ideal of the solitary savant.

69 For further explanation see Yeo, *Defining Science*, pp. 137-138.
In employing the language of ‘discoverer’, Whewell therefore bypassed the negative associations of solitude that shrouded the idea of genius. Discoverers, far from being solitary, were characterised by Whewell as important components of a wider scientific enterprise. These individuals were incorporated into the realm of science on two levels. One mode of incorporation was locating them historically as part of a community of thinkers who never actually met each other, an idea that indicated Whewell’s debt to the ‘torch-of-knowledge’ metaphor. Another way was in terms of future developments where each leap to a new inductive epoch was located within a framework of the subsequent routine scientific work. Timothy Alborn has suggested that Whewell differed from other scientific reformers such as Herschel and Babbage in locating scientific ability in individuals rather than communities. Yet this is too sharp a distinction. Certainly, Whewell emphasised the importance of the role of the individual as epoch-making discoverer, in Newton’s case for example, being the active agent who reformed the vast accumulation of facts and theories of the past into a new and powerful induction. Progress was therefore the result of human will, furthered by individuals who possessed moral and intellectual strength. But progress also hinged on the existence of a scientifically competent body of followers, a group of the technically proficient, who were capable of extrapolating the consequences of the initial discoverer’s work. Scientific progress relied just as much on such groups, bodies of men, ‘trained and stimulated to the study of the higher mathematics, such as exists in the British universities’, who were

‘prepared, when an abstruse and sublime theory comes before the world with all the characters of truth, to appreciate its evidence, to take steady hold of its principles, to pursue its calculations, and thus to convert into a portion of the permanent treasure and inheritance of the civilized world, discoveries which might otherwise expire with the great geniuses who produced them, and be lost for ages, as, in former times, great scientific discoveries have sometimes been.’

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73 Cantor, ‘Between rationalism and Romanticism’, p. 86.
74 See Whewell, *History*, I, p. 13, for Whewell on the importance of the Sequel period to the epoch of discovery.
Indeed, preaching the importance of the collective endeavour was something that Whewell lived out in his own scientific practice. For instance, in his work on 'tidology' (another word of his coining), aimed at discovering the causes of the tides, Whewell marshalled groups of observers, drawn from scientific societies and coast guards, into obtaining systematic tidal readings, first in London, then in Liverpool. The scope of his work grew to such an extent that eventually he was co-ordinating data from other researchers around the globe. Although as a result of his investigations he wrote some fifteen papers between 1833 and 1850, which were subsequently published in the Royal Society's *Philosophical Transactions*, in terms of his own theory of the method by which science advanced, Whewell's work on tides was a failure: he was unable to establish any patterns from which explication of conceptions and the colligation of facts were possible.\(^76\)

**Intellect vs. Imagination in Scientific Method**

Whewell expanded on these ideas in his *Philosophy* of 1840. In Whewell's conception of how scientific discovery occurred, an important balance was to be achieved between the discoverer's intellect and his imagination. Asserting that 'No scientific discovery can, with any justice, be considered due to accident', Whewell insisted that there were very particular faculties and elements that were involved in a discovery. Amongst these, the nature of the configuration of the discoverer's mind was important: 'In whatever manner facts may be presented to the notice of a discoverer, they can never become the materials of exact knowledge, except they find his mind already provided with precise and suitable conceptions by which they may be analysed and connected.'\(^77\) The nature of sound scientific intellect was also key, as Whewell indicated in part of his discussion of Newton:

> 'If it were true that the fall of an apple was the occasion of Newton's pursuing the train of thought which led to the doctrine of universal gravitation, the habits and constitution of Newton's intellect, and not the apple, were the real source of this great event in the progress of knowledge. The common love of the

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\(^{77}\) Whewell, *Philosophy*, II, p. 189, Whewell's emphasis.
marvellous, and the vulgar desire to bring down the greatest achievements of genius to our own level, may lead men to ascribe such results to any casual circumstances which accompany them; but no one who fairly considers the real nature of great discoveries, and the intellectual processes which they involve, can seriously hold the opinion of their being the effect of accident.\footnote{Whewell, Philosophy, II, pp. 189-190.}

Whewell hence turned the flash of insight of the genius into something that depended on a well-prepared intellect, one that had been dedicated to constant contemplation of scientific phenomena:

`Such accidents never happen to common men. Thousands of men, even of the most inquiring and speculative men, had seen bodies fall; but who, except Newton, ever followed the accident to such consequences? And in fact, how little of his train of thought was contained in, or even directly suggested by, the fall of the apple! If the apple fall, said the discoverer, why should not the moon, the planets, the satellites fall? But how much previous thought, what a steady conception of the universality of the laws of motion gathered from other sources, were requisite, that the inquirer should see any connexion in these cases! Was it by accident that he saw in the apple an image of the moon, and of every body in the solar system?\footnote{Whewell, Philosophy, II, p. 190.}^`^79

Whewell’s work thus synthesised elements of the conception of genius with those of the moral Baconian inductivist. In Bacon’s division of the faculties of the mind, reason and intellect were usually reserved for the higher of man’s spiritual natures: his soul. The role of the imagination, performed by the (lower) spirit rather than the (higher) soul, was for Bacon not to be privileged: men who aimed to achieve their goals through the working of their imagination, by-passed the necessary labour: ‘those noble effects which God hath set forth unto man to be bought at the price of labour,’ were then not ‘to be attained by a few easy and slothful observances’.\footnote{Francis Bacon, The Works of Francis Bacon, Baron of Verulam, Viscount St. Alban, and Lord High Chancellor of England, ed. James Spedding, Robert Leslie Ellis, and Douglas Denon Heath (London: Longman and Co., 1859), 7 vols., III, part 3: Advancement of Learning, Book 2 of 2, pp. 321-491: quote p. 381; D.P. Walker, ‘Francis Bacon and Spiritus’, in Allen G. Debus (ed.), Science, Medicine and Society in the Renaissance: Essays to honor Walter Pagel (New York, 1972), 2 vols., I, pp. 121-130; especially pp. 127, 128. On Whewell’s assessment of Bacon’s method see Yeo, ‘Idol’, pp. 272-277.} His was a dualistic philosophy of
science, but one in which the imaginative element, although essential, and previously
central to the conception of genius, was ultimately subordinate to the rational, reasoning
intellect. Thus hypotheses were key in discoveries:

'Hence advances in knowledge are not commonly made without the previous
exercise of some boldness and license at guessing. The discovery of new truths
requires, undoubtedly, minds careful and scrupulous in examining what is
suggested; but it requires, no less, such as are quick and fertile in suggesting.
What is invention, except the talent of rapidly calling before us the many
possibilities, and selecting the appropriate one?'  

Yeo is right to flag Whewell's inclusion of elements of genius such as the imagination
within his scientific methodology, elements that Bacon had firmly excluded, but it also
reveals more about the way in which the role of genius within science was tempered.
Whewell's description of the discoverer was one that emphasised reason and intellect
over imagination and intuition. As he had explained in his History in relation to the rise
of dogmatism after the decline of the Roman Empire, when 'the love of speculation'
found 'no secure and permitted paths on solid ground', that is, when wild ideas were not
checked by sober reasoning, they 'went off into the regions of mysticism'.  

For Whewell, celebration of the intellect as against the imagination was fully in keeping
with the beliefs of the natural theology of the Anglican Church, which, in contrast to the
rising Evangelical movement, emphasised rationality over the spiritual element of
religion. In his History, Whewell had taken the proven capacity to discover the laws
of nature and to express them mathematically as evidence of an affinity between the
human and divine mind. If the human mind was capable of revealing the intelligibility
of nature, then a secure scientific knowledge was possible. Whewell believed that
respect for the divine mind must be maintained in order for human authority to be
respected. For Whewell, the mental habits involved in unravelling the fabric of nature,
and the importance of the imaginative faculty for forming hypotheses acting on facts,
encouraged in the discoverer the belief in a benevolent Creator, since the inductive

81 Whewell, Philosophy, II, p. 221.
83 See Elizabeth Jay, 'Introductory essay', in Elizabeth Jay (ed.), The Evangelical and Oxford Movements
intellectual path of discovery revealed how order was made from disorder.\textsuperscript{85} For Whewell the imagination of man was 'itself the work of God', but this was not a spiritualised interpretation of the faculty. The imagination and the intellect, both gifts from God, were to be put to use to find God, the source of order, through the chaos of nature. Indeed, as Whewell described the deity in his Bridgewater treatise, God was 'the union of all perfection, the highest point of all intellectual and moral excellence'.\textsuperscript{86}

Whewell's scientific ideology as it developed in his Philosophy was therefore orientated more towards a rational, but fundamentally Christian, system where reason dominated the intellectual process. Whewell was therefore adamant that the discoverer should be dispassionate and as objective as possible:

'In the first place, facts, when used as the materials of physical science, must be referred to conceptions of the intellect only, all emotions of fear, admiration, and the like, being rejected or subdued. Thus the observations of phenomena which are related as portents and prodigies, striking terror and boding evil, are of no value for purposes of science. ... We cannot make the poets our observers.'\textsuperscript{87}

Moreover, Whewell contrasted the spiritual imagination that produced works of artistic genius, with the rational intellect necessary for scientific discovery:

'It appears probable that neither poetry, nor painting, nor the other arts which require for their perfection a lofty and spiritualized imagination, would have appeared in the noble and beautiful forms which they assumed in the fourteenth and fifteenth century, if men of genius had, at the beginning of that period, made it their main business to discover the laws of nature, and to reduce them to a rigorous scientific form.'\textsuperscript{88}

In connection with Whewell's work in his Bridgewater treatise, Yeo argues that Whewell was able to promote an image of science that was free of irreligious and pragmatic connotations because he championed an epistemology which emphasised the spiritual character of mind.\textsuperscript{89} However such an interpretation glosses over the

\textsuperscript{85} Yeo, Defining Science, p. 120.
\textsuperscript{86} Whewell, Astronomy and General Physics Considered with Reference to Natural Theology, pp. 378-379, quotes p. 379.
\textsuperscript{87} Whewell, Philosophy, II, p. 197, Whewell's emphasis.
\textsuperscript{88} Whewell, Philosophy, II, p. 339.
difference in Whewell’s use of ‘genius’. Whewell’s description of the human mind, while insisting on the importance of imagination, was not a spiritualised interpretation. Indeed, the latitudinarian Anglican core members of the British Association, Whewell included, were judged to be threatening the spiritual nature of mankind by their espousal of the natural theological collective endeavour. The Tractarians, the name given to the High Churchmen at the University of Oxford, and the most hostile opponents of scientific institutions, feared the development of a secular morality founded on the latitudinarian interpretation of science. While not attempting to disparage learning, the Tractarians insisted that true learning consisted of more than simply the cultivation of the intellect. Knowledge, i.e. knowledge of God, was not to be gained through wholly rational reasoning, but by encountering the Deity spiritually, through revelation. For them, material phenomena were the types and instruments of things unseen. The British Association’s rhetoric of natural theology was characterised by Tractarians such as John Henry Newman as allowing Dissenters, such as Dalton, access to Oxbridge by the back door.

That Whewell’s philosophy of science was not spiritualised enough for the Tractarians is highlighted by their fear that the philosophy of science championed by the broad church scientists, threatened to institute a secularisation of spiritual hierarchies and thus place a limitation of the power of God. The High Churchmen at Oxford were characterised by a profound conservatism, and were focused on preserving existing spiritual and temporal hierarchies. Emphasising patristic learning, an archaic and unemotional form of religion that stuck to the traditional liturgy, they were staunchly averse both to the emotional outbursts of the Evangelicals, and to non-episcopal Protestantism. Newman, for instance, argued that genius was ‘intuitive knowledge’ and believed that ‘they who have a corresponding insight into moral truth (as far as they have it) have reached that especial perfection in the spiritual part of their nature, which

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91 See Whewell, History, III, pp. 152-153, and above pp. 103-104.
is so rarely found, and so greatly prized among the intellectual endowments of the soul. However, such genius was nothing compared with the deity:

'We know that philosophers of this world are men of deep reflection and inventive genius, who propose a doctrine, and by its speciousness gather round them followers, found schools, and in the event do wonderful things. These are the men, who at length change the face of society, reverse laws and opinions, subvert governments, and overthrow kingdoms; or they extend the range of our knowledge, and, as it were, introduce us into new worlds. Well, this is admirable, surely, so vast is the power of mind; but, observe how inferior is this display of intellectual greatness compared with that which is seen in Christ and His saints, inferior because defective. These great philosophers of the world, whose words are so good and so effective, are themselves too often nothing more than words.'

Yet the Tractarians perceived other threats in the emphasis being given to collectivism within science by the liberal Anglican organising core of the British Association. The Tractarian John William Bowden for instance portrayed collectivism as injurious to the value of individually governed inquiry, arguing that any advantages gained by the clubbing together of men of science were counterbalanced by 'disadvantages, both scientific and moral, of a serious kind.' He feared not only a dumbing down, with great individuals potentially being restrained by the 'dwarfish proportions of the duller and less aspiring' majority, but also the effect of dilution that absorbing a vast number of smaller minds into the scientific process could result in unconfirmed or, worse still, controversial findings being discussed in public forums, rather than being confined to the private discussions of savants. Indeed, Newman, in his sermon, entitled 'The Nature of Faith in Relation to Reason' given in 1839, insisted on the pre-eminent place of genius in the mathematical sciences, and contrasted the abilities of the genius with the meaner intellects of the masses:

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95 John William Bowden, 'The British Association for the Advancement of Science', *The British Critic, and Quarterly Theological Review*, XXV, no. XLIX (1839), 1-48, pp. 16 and 17; also discussed in Yeo, *Defining Science*, pp. 126-127.
‘The most remarkable victories of genius, remarkable both in their originality and the confidence with which they have been pursued, have been gained, as though by invisible weapons, by ways of thought so recondite and intricate that the mass of men are obliged to take them on trust, till the event or other evidence confirms them. Such are the methods which penetrating intellects have invented in mathematical science, which look like sophisms till they end in truths. ... Or, let it be considered how rare and immaterial (if I may use the words) is metaphysical proof; how difficult to embrace, even when presented to us by philosophers in whose clearness of mind and good sense we fully confide; and what a vain system of words without ideas such men seem to be piling up, while perhaps we are obliged to confess that it must be we who are dull, not they who are fanciful; and that, whatever be the character of their investigations, we want the vigour or flexibility of mind to judge of them.'

However, men other than Whewell also began to emphasise the role of the intellect over that of the imagination. James Manby Gully (1808-1883), a member of the Royal College of Physicians, and a Fellow of the Royal Physical Society of Edinburgh, had his Lectures on the Moral and Physical Attributes of Men of Genius and Talent, delivered at the Western Literary and Scientific Institution in London, printed for private circulation in 1836. Examining genius from the point of physiology, Gully stressed the importance of the nervous system, the seat of the excessive sensibility, which he believed was a fundamental feature of genius. In his descriptions of genius, which he insisted were not ‘to be viewed as a professional effusion’, genius balanced imagination with a properly disciplined intellect, as well as certain moral qualities. Thus,

‘the profound mathematician, the superior naturalist, the clear-sighted physical philosopher, the skilful physician, even the consummate general, is a man who unites in himself a vast range of thought with an exquisite judgment and precise tact; one, in short, who imagines and observes, who conceives and experiments, who invents and applies.’

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98 Gully, Lectures, p. 55.
However, Gully was not writing on genius out of mere intellectual curiosity: he had an ulterior motive. Gully, an ambitious social climber, targeted those he believed to be men of genius to be his patients. At the time of writing his Lectures, Gully was working at a fashionable London practice, and seeking an élite clientele. He subsequently constructed his water-based cure (establishing his practice at Malvern in the 1840s) around the appealing notion that excessive mental activity could lead to nervous breakdown: through his techniques, a physically vigorous regime to stimulate the circulation, eminent Victorians such as Tennyson and Carlyle, were offered soothing for their overworked minds. In this context of attempting to attract a particular élite patient base, Gully's description of genius consisted of combinations of virtues, highlighting the role of the intellect: an 'exquisite sensibility, readily excited, ever active, with a methodical and positive reasoning power', and 'exaltation with precision of soul, ardour with perseverance, power of conception with patience in execution; such is the rare, the invaluable coalition which gives genius its inappreciable, yet irresistible sway.'

Others also stressed the importance of the correctly disciplined mind and intellectual habits over flights of genius. Focusing on what he perceived to be the proper habits of the mind, rather than genius, John Abercrombie, following the example of the Scottish anatomist and surgeon Charles Bell (1774-1842), recast John Hunter as an assiduous investigator, a mode of description that redefined what characterised distinction within the medical profession:

'According to a common mode of expression, we attach great importance to that which we call genius, and which we consider as an original quality of particular minds. But what is of greater value, than that which often receives the name of genius, is not to be considered as an original quality, but a habit of the mind. It is nothing more than intense mental activity, steadily directed to some leading pursuit. This important principle was well illustrated by Sir Charles Bell, in his introductory address to his first course of lectures in Edinburgh, when he took occasion to allude to that distinguished physiologist and surgeon, Mr. John

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100 Gully, Lectures, p. 55.
Hunter. Mr. Hunter, he said, had been called a man of genius, but he was
disposed to take a different view of his character, from that which is commonly
expressed by that term. The great and leading feature in Mr. Hunter's character,
he added, was,—that he was steadily and eagerly devoted to his object,—and
that no change of external circumstances had the power, for one moment, of
turning him aside from it.¹⁰¹

This discussion formed part of the dominant image creation of John Hunter during the
early nineteenth century, which was the work of the Hunterian Orators, those who spoke
at the series of annual accolades that were dedicated to the memory of Hunter that had
been established during the 1810s. Hunter, an eminent surgeon, was seen as a pivotal
figure, whose career marked a turning point in knowledge, bringing science and
medicine firmly into alliance in demonstrating the relevance of physiology to
therapeutics and pathology. Different images of Hunter could be employed to satisfy
the demands of particular polemical contexts.¹⁰² In Abercrombie's case, Hunter was
used to argue for the importance of dedication to the proper intellectual habits:

'one great object was steadily and habitually before him, and he never lost an
opportunity of seizing upon every thing that could, in any way, be made to bear
upon it. This, call it by what name you will, is the source of all distinction. It is
greatly assisted by education, but what I am anxious to impress upon you is, that
it is not an original quality, but an acquired habit of the mind,—and a habit
which may be cultivated by every one who determinedly devotes himself to high
attainment.'¹⁰³

Other evidence from writers at the time suggests that education and qualities such as
judgment rather than imagination were to be sought and developed, such as this
example from Rev. John Barlow. A graduate of Trinity College Cambridge, and
secretary of the Royal Institution, Barlow was an exponent of the moral therapy
tradition of treating the insane, whose Man's Power over Himself to Prevent or Control
Insanity was communicated to the Royal Institution, and subsequently published, in

¹⁰¹ Abercrombie, Culture and Discipline of the Mind, pp. 37-38; Abercrombie's italics.
¹⁰² For a discussion of the wider attempts to forge images of Hunter, see L.S. Jacyna, 'Images of John
¹⁰³ Abercrombie, Culture and Discipline of the Mind, pp. 37-38.
1843. Moral therapists stressed the curability of mental illness, and insisted on the re-education and re-socialisation of the insane rather than physical restraint. Thus Barlow insisted that, 'Insanity from misdirection of the intellectual force is so various in its forms, that it would be impossible to give instances of all', but he wrote generally that, 'Thoughts too long and too intensely fixed on one object, weary the part of the brain so employed, and we usually then seek relief by varying our occupation: if this is not done, the weariness may end in disease.'

Barlow enlarged this part of his discussion in the second edition of this work in 1849, quoting from John Conolly's *Inquiry Concerning the Indications of Insanity*, first published in 1830. 'Education', Conolly had asserted, 'is the training and exercise of the mind'. He went on, 'To educate a man, in the full and proper sense of the word, is to supply him with the power of controlling his feelings, and his thoughts, and his actions'. Thus,

'The registers of the Bicêtre, for a series of years, show that even when madness affects those who belong to the educated classes, it is chiefly seen in those whose education has been imperfect or irregular, and very rarely indeed in those whose minds have been fully, equally, and systematically exercised. Priests, artists, painters, sculptors, poets, and musicians, whose professions so often appear marked in that register, are often persons of very limited or exclusive education; their faculties have been unequally exercised; they have commonly given themselves up too much to imagination, and have neglected comparison, and have not habitually exercised the judgment.'

Barlow was advocating a broad and liberal education, appealing to a Georgian ideal, that education should not be 'narrow, one-sided and illiberal'. If insanity was due to

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imbalance for Barlow, then prevention lay in a theory of liberal education that stressed the education of the whole man: all aspects of his education were therefore important, from his formal studies to the use he made of his leisure time.\footnote{For a standard account of the liberal education, see Rothblatt, \textit{Tradition and Change in English Liberal Education}, pp. 146 (quote), 86; see also Paul Langford, \textit{Englishness Identified: Manners and Character 1650-1850} (Oxford, 2000), p. 295.} Indeed, education was a Christian duty:

\begin{quote}
'The cases of insanity, we are told, have nearly tripled within the last twenty years!—a fearful increase even after allowing to the utmost for a larger population! ... On the heads then of legislators, of teachers, and of parents, lies the heavy charge of having in all these instances, left those godlike faculties uncultivated, which, if duly used, might make earth the ante-room of heaven, and man the fit Vice-gerent of the Deity in this fair world.'\footnote{Barlow, \textit{On Man's Power over Himself to Prevent or Control Insanity}, pp. 49-50.}
\end{quote}

Others however, such as the Scottish physicist, David Brewster (1781-1868), retained a role for the imagination within the inductive method, and launched aggressive attacks upon the value of the Baconian methodology.\footnote{Yeo, 'Idol', p. 277.} Thus it was in 1830, writing to James David Forbes (1809-1868), Whewell's disciple in Edinburgh, that Brewster wrote, ‘Forget entirely all that you have heard of Lord Bacon's Philosophy. Give full reins [sic] to your imagination. Form hypotheses without number’.\footnote{David Brewster to James David Forbes, Melrose, 13 November 1830, University of St Andrew's Library, Correspondence and Papers of James David Forbes, incoming letter, 1830/35, p. 2; quoted in Richard Olson, \textit{Scottish Philosophy and British Physics 1750-1880: A Study in the Foundations of the Victorian Scientific Style} (Princeton, New Jersey, 1975), p. 238.} The context for Brewster's anti-Baconianism is his drawn out battle against the dominance of the Cambridge scientists, and their devotion to abstract mathematical science.\footnote{Yeo, 'Idol', pp. 279-280.} In his 1831 biography of Newton, as well as in his reviews of Whewell's two major works, Brewster continued to hold to this position, insisting that scientific discoveries could not be reduced to artificial rules. In Brewster's view, in 1831, 'The impatience of genius spurns the restraint of mechanical rules, and never will submit to the plodding drudgery of inductive discipline.'\footnote{Brewster, \textit{The Life of Sir Isaac Newton}, pp. 336-337; also discussed in Yeo, 'Idol', p. 278.} Again, in 1837, the attempt to define the laws of the inductive sciences appeared 'utterly hopeless' to Brewster. He continued,
'if we cannot conceive how a Newton or a Laplace could give laws to inventive and original minds, still less can we imagine that heaven-born genius can be either checked or directed in its flight by those who have never imbibed its spirit nor wielded its power.\textsuperscript{113}

As Brewster construed it, discoveries occurred when new phenomena provoked new conjectures, which in turn suggested additional observations and experiments. Any attempt, Brewster believed, to reduce this scientific process to simple rules was misplaced; it was not a methodology that one was to derive from historical examples, but moral injunctions to patience, 'indomitable perseverance' and single-mindedness. It was 'by the application of all the means and instruments at our disposal' that the truth – to which Brewster also referred as 'the prize' and 'the gem' – would be revealed like a 'diamond in its native purity and lustre.'\textsuperscript{114} However, Brewster also downplayed the relevance of the imagination to the scientific process when it suited his arguments. In defending Newton's reputation from the charges of a brief spell of insanity, Brewster numbered 'the weaknesses of his imaginative powers' along with Newton's pure moral character, ardent piety, and abstemious lifestyle, as all the indicators of 'a mind which was not likely to be overset by any affliction to which it could be exposed.'\textsuperscript{115}

While Yeo's assertion of Whewell's emphasis on the role of the imagination is helpful in illuminating the differences between orthodox Baconian induction and the kind of inductive method that Whewell developed,\textsuperscript{116} Whewell's position might also be seen as a dilution of the role of the genius within science, with imagination having to be reined in by conformation to a specific discipline. Although he negociated a place for the workings of hypotheses and the imagination within science, Whewell nevertheless made their operation contingent on there being an existing framework of his inductive system within which the imagination could function. Undisciplined flights of fancy were not to be countenanced.

\textsuperscript{113} David Brewster, 'Whewell's History of the Inductive Sciences', Edinburgh Review, or Critical Journal, lxvi (October 1837), 110-151: p. 150; see also Yeo, Defining Science, p. 164; and Yeo, 'Idol', p. 277.


\textsuperscript{116} See Yeo, 'Idol', p. 274.
Yet as Whewell’s beliefs on the nature of good science were firmed up during the 1840s and 50s, and as he became bolder in his attack on strict Baconian induction, he began to state more positively in the 1850s than he had in the 1830s that there was an unassailable place for the imagination within science. Thus in his *On the Philosophy of Discovery* of 1860, largely a reworking of part of his *Philosophy of the Inductive Sciences*, with a few additions on the theological bearing of the philosophy of science, Whewell opined that,

‘Bacon’s method, as well as his object, is vitiated by a pervading error: —the error of supposing that to be done by method which must be done by mind; —that to be done by rule which must be done by a flight beyond rule; —that to be mainly negative which is eminently positive; ... —that to be mere prose which must have a dash of poetry; —that to be a work of mere labour which must be also a work of genius.’

Yet élite attitudes, such as Whewell’s, to what constituted good science were subsequently challenged when *Vestiges of the Natural History of Creation*, an evolutionary tract, was published anonymously in 1844 by the Scottish naturalist and publisher Robert Chambers (1802-1871). It drew vigorous criticism from both scientists and theologians, with Whewell and others, such as the geologist and Cambridge don Adam Sedgwick (1785-1873), criticising it on various grounds, not least on its dubious scientific approach. It appears that Whewell viewed its success as a failure on the part of scientific commentators in explicating the precise nature of good science to a wider, less scientifically knowledgeable, audience. Whewell’s reply to *Vestiges*, his *Indications of the Creator* of 1845, was a series of already-published sections of his major works, tacked together, with a preface attacking bad science, the intellectual and moral errors he identified with certain scientific theories. In his preface, Whewell iterated a firm statement of what he perceived to be ‘proper’ scientific method, a form of induction informed by natural theology:

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117 Yeo, *Defining Science*, p. 246; it was only in the 1850s that Whewell openly acknowledged that his theory of induction, with its role for the imagination, was fundamentally at odds with Bacon’s, see Yeo, ‘Idol’, p. 274.
119 On this see Yeo, *Defining Science*, p. 113.
'I have already ventured to express an opinion [Whewell's footnote: Bridgewater Treatise, Book III, Ch. V and VI] that Inductive Minds, those which have been able to discover Laws of Nature, have also commonly been ready to believe in an Intelligent Author of Nature; while Deductive Minds, those which have employed themselves in tracing the consequences of Laws discovered by others, have been willing to rest in Laws, without looking beyond to an Author of Laws.'

While the perceived need for imagination within the scientific process might reflect the demise of orthodox Baconian induction, as well as the increasing confidence and autonomy of the scientific community, this was not a straightforward appeal to genius. Whewell did not use the term 'genius' as an all-encompassing description of the good scientist. Elements that previously had been fundamental qualities of genius, particularly the imagination, became functions of the intellect, rather than the spiritual natures which Davy had posited. The attributes of genius that were appropriate to science did not include the spiritualised imagination that characterised the poet. Science was not a spiritual activity in that sense, but it did rely on divinely bestowed reason, incorporating an element of imagination and applying it to facts. Progress in science was not produced simply by a sublime imagination. Within a liberal Anglican framework therefore, that emphasised rationality over spirituality, the role of imagination within science was not an inspired gift. Rather, the imagination was cast as a human faculty that should be employed in fulfilment of the Christian duty, to avoid intellectual indolence and the ignorance it propagated, which were seen as disobedience to the will of God.

120 William Whewell, Indications of the Creator. Extracts, bearing upon Theology, from the History and the Philosophy of the Inductive Sciences (London, 1845), p. x; also discussed in Yeo, Defining Science, p. 113
121 Yeo, 'Idol', p. 287.
Sanity and the Sagacious Discoverer

Whewell’s *History* and *Philosophy* also witnessed another alteration in language. In describing the model discoverer, Whewell employed the less contentious term ‘sagacity’ in place of ‘genius’, putting a different spin on the nature of the discoverer’s role in the scientific method. Thus Whewell argued, for instance, that ‘the leading thought which suggested and animated all Kepler’s attempts’ into discerning the numerical and geometrical relationships between the times, distances and velocities of the revolving bodies of the solar system, ‘was true, and we may add, sagacious and philosophical’. ‘Sagacious’ or ‘sagacity’ was a term which Whewell employed more frequently in subsequent editions of his *History*, using it of historical figures and contemporaries alike. Hence he referred to the Greek astronomer Hipparchus’ ‘extraordinary sagacity’, and John Herschel’s ‘good fortune and sagacity’ in his discoveries in light polarisation. However, it was obvious to whom Whewell compared many investigators. While discussing the undulatory theory of light, Whewell remarked of the French physicist Augustin Jean Fresnel (1788-1827) that, having ‘got possession’ of the principle of the mechanism of polarisation, ‘Fresnel proceeded to apply it to the other cases of polarized light, with a rapidity and sagacity which reminds us of the spirit in which Newton traced out the consequence of the principle of universal gravitation.’ Whewell clearly believed it was an important point, as he argued the same detail a few pages later, judging that in Fresnel’s researches into polarization, ‘we are, it appears to me, strongly reminded of Newton, by the wonderful inventiveness and sagacity with which he devised experiments, and applied to them mathematical reasonings.’ Newton was the benchmark sagacious scientific discoverer for Whewell against whom other investigators were to be measured.

Although convinced of Newton’s pre-eminence as a scientific discoverer, Whewell refrained from employing the term ‘genius’. In his *History*, Whewell touched on the

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elements he believed comprised the mathematical talent: ‘It must possess distinctness of intuition, tenacity and facility in tracing logical connexion, fertility of invention, and a strong tendency to generalisation. It is easy to discover indications of these characteristics in Newton.’ While acknowledging that the realm of idea-formation might remain a mystery, Whewell emphasised the identifiable elements of the character of the scientific discoverer, and continued to avoid attributing them to genius:

‘The hidden fountain of our unbidden thoughts is for us a mystery; and we have, in our consciousness, no standard by which we can measure our own talents; but our acts and habits are something of which we are conscious; and we can understand, therefore, how it was that Newton could not admit that there was any difference between himself and other men, except in his possession of such habits as we have mentioned, perseverance and vigilance.’

Whewell’s abandoning of the term ‘genius’ was not simply because of its contentious connotations that invoked solitude discussed above: the category of inspired genius was inadequate to denote all of the suitable characteristics that Whewell felt a scientific discoverer should possess. The scientific discoverer was to be objective as far as possible: he was to use his innate faculties, some of which had previously been ascribed to genius, but these were to be complemented by other characteristics, essential to the inductive method:

‘If many of the guesses of philosophers of bygone times now appear fanciful and absurd because time and observation have refuted them, others, which were at the time equally gratuitous, have been confirmed in a manner which makes them appear marvellously sagacious. To form hypotheses, and then to employ much labour and skill in refuting, if they do not succeed in establishing them, is a part of the unusual process of inventive minds. Such a proceeding belongs to the rule of the genius of discovery, rather than (as has often been taught in modern times) to the exception.’

Executed in this way, Whewell believed this was modern science at its very best.

129 Whewell, Philosophy, II, p. 221.
Whewell’s use of ‘sagacity’ in his *History* was important. By emphasising the element of the method of scientific discovery that involved keen perception and thought, Whewell was able to account for periods when Newton had apparently suffered attacks of insanity in a different way. As Fara’s work has illustrated, Newton’s life and work were used in a variety of ways to argue a wide spectrum of points including, among others, issues concerning the nature of scientific enterprise, the role of the individual philosopher, the importance of moral virtues, and to press for more active participation on the part of the state in funding scientific research. There was not merely one historical Newton but many, created by different biographers to fulfil different purposes. Indeed, one interpretation visible in moralising British texts exhorting youngsters to follow the methods of past greats, reported incidents that might have been expected to ‘derange’ the natural philosopher were re-branded as occasions where Newton had displayed his exemplary moral conduct and self-control. One popular book was *Buds of Genius*, published in 1816, with a second edition in 1818, which was aimed at children and laid out in a dialogue format with a mother telling stories to her children. It set out to explain the early lives of ‘celebrated characters’ so as to ‘operate as a pleasing stimulus to juvenile exertion, in the pursuits of learning and virtue.’ Recounting the well-known tale of Newton’s dog, Diamond, knocking over a candle and causing a fire in which some of Newton’s papers were burned, the ‘Mamma’ of the dialogue emphasised the degree of calm which Newton is supposed to have exhibited. She went on, ‘He was a truly excellent character; and his modesty was as remarkable as his genius. In speaking of his discoveries, he once observed: “If I have done the public any service this way, it is due to nothing but industry and patient thought.”’ Similarly, as Whewell observed in his *History*:

‘Newton has been so universally considered as the greatest example of a natural philosopher, that his moral qualities, as well as his intellect, have been referred to as models of the philosophical character; and those who love to think that great talents are naturally associated with virtue, have always dwelt with

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pleasure upon the views given of Newton by his contemporaries; for they have uniformly represented him as candid and humble, mild and good.134

However, in 1821, Jean-Baptiste Biot, Newton’s French biographer, had alleged that Newton had suffered periods of insanity around 1693, episodes supposedly prompted by the accidental burning of important papers. Such allegations prompted vehement protest from Brewster in his assessments of Newton in both 1831 and 1855,135 who proceeded to rubbish Biot’s claims. Whewell however handled the issue differently. In his History, Whewell did not suggest at any point that Newton had experienced such attacks. Instead, he explained periods when Newton appeared isolated from the world as occasions of his displaying his intensely sagacious turn of mind, and, by association, his supreme devotion to the inductive scientific method. Characterising Newton as the archetypal, epoch-making, rational inductivist discoverer, Whewell portrayed him as being so devoted to the scientific method that Whewell described, (comprising ideas and hard-won facts), that at points Newton appeared to subordinate himself totally to its workings. Whewell asserted that Newton owed his discoveries to ‘constant attention; which ‘necessarily engaged and absorbed his spirit’, rendering him ‘inattentive and almost insensible to external impressions and common impulses.’ Instead of taking on the Romantic appeal to a model of solitude, Whewell employed a different motif: the idea of men of science experiencing an ‘extreme absence of mind’, becoming wrapped in their own thoughts, as a means to demonstrate their utmost dedication to the inductive scientific methodology Whewell outlined. Whewell did not openly refute the idea that Newton had suffered a period of mental illness, as Brewster had done in answer to Biot’s charges. Instead Whewell skirted round the issue. Describing the complex nature of Newton’s investigations, Whewell described a natural philosopher who was often lost in thoughts and consequently ‘he knew not what he did, and his mind appeared to have quite forgotten its connexion with the body.’136

135 Brewster, Life of Sir Isaac Newton, pp. 222-41; Brewster, Memoirs of the Life, Writings, and Discoveries of Sir Isaac Newton, II, pp. 131-156, 184-185; Biot, ‘Newton’, (1821) translated by Elphinstone, Lives of Eminent Persons (1833); also discussed in Fara, Newton, pp. 208, 216.
Such an idea of disembodiment was not new with Whewell but had Romantic origins as discussed above. As Schaffer points out, for Romantics such as Coleridge, the natural philosopher or scientist had to disembowel the intellectual side of themselves in order to acquire knowledge of the workings of the imagination.\textsuperscript{137} Whewell was employing a Romantic conception in order to account for Newton’s apparent absent-mindedness. Thus, Whewell explained,

‘Even with his transcendent powers, to do what he did, was almost irreconcilable with the common conditions of human life; and required the utmost devotion of thought, energy of effort, and steadiness of will,—the strongest character, as well as the highest endowments, which belong to man.’\textsuperscript{138}

Whewell therefore used Newton to argue that extreme devotion to the scientific method, particularly intense periods of thinking, could sometimes result in overstrain and slightly odd behaviour, or, as Whewell characterised it ‘extreme absence of mind’. This meant that Whewell was able to construe periods of Newton’s apparent dislocation from the world as indications of a whole-hearted, and whole-headed, dedication to the scientific method. These were occasions on which the method might overwhelm the discoverer’s own conscious thoughts, occasions which were nevertheless rare in Whewell’s insistence on supreme importance of the heroic contribution to the progress of science. In this way, Whewell dealt with the problem of how to accommodate alleged periods of insanity of eminent individuals within the history of science. Employing the idea of disembodiment allowed Whewell to suggest that periods where the natural philosopher seemed most absent were actually moments of tremendous significance, when he was in his deepest communion with nature.

While genius or the faculty of discovery was not the necessary accompaniment of insanity, dangers both physical and mental were gradually identified with such intensity of work. As Brewster complained in 1809 to his co-editor of the \textit{Edinburgh Encyclopaedia} (first published in Edinburgh in 1830), ‘My hand is absolutely shaking with fatigue, and my head almost turned with … temporary delirium of over


\textsuperscript{138} Whewell, \textit{History}, II, pp. 185-186.
exertion. But warnings and complaints about the deleterious effects of over exertion were not frequent in early- to mid-nineteenth century printed material. In fact, the majority of texts focused on the desirability of hard work.

**Hard Work and Self Help**

Although this period marks the beginnings of collectivity in science, from the 1830s, and up until the 1870s, the dominant social philosophy was individualism, within which was a powerful emphasis on self help and hard work. The concept of work was central to both Victorian moral and economic ideology. From Adam Smith’s *The Nature and Causes of the Wealth of Nations* in 1776 to Samuel Smiles’ best-selling *Self-Help*, and John Stuart Mill’s *On Liberty*, both published in 1859, the virtues of the prevalent social and political ideologies of individualism, voluntarism, libertarianism and self-help, which emphasised hard work, duty and respectability, were lauded within Britain. These persistent philosophies implied the belief that individuals should assume responsibility for initiating and supporting their own activities by employing their personal powers of choice, will and action, as opposed to relying on state control or intervention. As Smiles explained it,

‘The spirit of self-help is the root of all genuine growth in the individual; and, exhibited in the lives of many, it constitutes the true source of national vigour and strength. Help from without is often enfeebling in its effects, but help from within invariably invigorates.’

However, Smiles was not the first to employ the self-help motif. From the 1830s onwards, there was a growing significance in élite scientific literature placed on the

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141 Individualism was prevalent within the organisation of British science, but this philosophy was increasingly, from the mid 1820s, supplemented by collective action, and state intervention, when judged expedient. On the philosophical underpinnings of the changes in the organisation of British science in the early nineteenth century, see Morrell, 'Individualism and the structure of British science in 1830', p. 188; also Jack Morrell, 'The patronage of mid-Victorian science in the University of Edinburgh', *Social Studies*, 3 (London, 1973), 353-388, especially pp. 354-356 on the reluctance of the government to intervene and disturb the prevailing individualism.

importance of qualities more within the reach of ordinary men. The increasing emphasis on the common qualities of pivotal figures, such as the capacity for hard work and perseverance, displaced previous appeals to ideas of genius. Typically, these commentaries and biographies described their subjects as individuals who rose from humble beginnings to the pinnacle of science by dint of their own effort, perseverance and application of native intelligence. These descriptions were frequently couched in terms without appealing to the supramundane qualities of ineffable genius or imagination. Newton’s life was cited as the epitome of the self-help ethic. In his 1831 biography of Newton, Brewster asserted that Newton’s discoveries were ‘the fruit of persevering and unbroken study; and he himself declared, that whatever service he had done to the public was not owing to any extraordinary sagacity, but solely to industry and patient thought.’

Such interpretations had also filtered through to literature that sought to disseminate élite ideas. The anonymous author of a short story for children, *Douglas and MacDonald; or Industry better than Genius* ([1832?]), for instance aimed ‘to point out the rapid progress of indolence to vice, and from vice to ignominy; illustrating, at the same time, the ultimate triumph of industry and perseverance over the pride of genius and indolence.’ Perseverance and the conviction that self-improvement was possible were also the messages of an essay read to a meeting of the Nottingham Literary and Philosophical Society in 1827, which was subsequently published in 1830 under the title *On Genius: In which it is attempted to be proved, that there is no mental distinctness among mankind.* Its author, one William Grisenthwaite, aimed to encourage men of ordinary ability that they were capable of great things, and not to slacken their efforts or shy away from attempting to be great. He hoped his essay prompted

> ‘emulation where the powers of nature are strong, and encourages exertion and perseverance, where they are weak. It says to all that are about, to start in the race of education; proceed;—if others, swifter than yourself, reach the goal

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143 Yeo, ‘Idol’, p. 286.
145 Anon., *Douglas and MacDonald; or Industry better than Genius* (London, [1832?]), p. iv.
before you, yet know, that after a little longer time, and a little more exertion, you will reach it also; and if you continue to cultivate, with diligence, your natural powers, you will find your speed daily increase; and should you, in mature like, be again matched with your former competitors, the prize may be yours.  

A greater emphasis on the significance of a broad, liberal education and proper training helped to serve Whewell’s interests in promoting the status of Cambridge as a seat of learning, whose educational system was capable of producing a man such as Newton.  

Even Brewster, the archrival of the Cambridge scientists, admitted that Cambridge was ‘the real birth-place of Newton’s genius’. Education was a hot topic throughout the nineteenth century. The importance of education was also reflected in the increasing number of popular educational groups such as the Society for the Diffusion of Useful Knowledge, and other institutions open to artisans. For instance, in 1823, the economic radicals Thomas Hodgskin and Joseph Robertson had founded the London Mechanics’ Institute, an institution subsequently taken over by George Birkbeck and Henry Brougham in 1825. Supported by radicals and dissenters, and supervised by Whigs who sought to curb the rebelliousness of the uneducated urban masses, the mechanics’ institute movement reached its peak in 1830, and constitutes a striking national attempt to educate the populace on a self help basis at a time when the state was indifferent. As Smiles later put it, ‘it is every day becoming more clearly understood, that the function of Government is negative and restrictive, rather than positive and active.’

Thus, appealing to the self help ethic, in exhorting the young to self-improvement through a study of juvenile biography, the Rev. Theodore Alois Buckley in 1853 observed that,

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146 William Grisenthwaite, *On Genius: In Which it is Attempted to be Proved, that there is No Mental Distinctness Among Mankind* (London, 1830), pp. 85-86.


151 Smiles, *Self Help*, p. 35.
'At the present time—when Education is a subject of discussion both for high and low—when even our universities can no longer involve themselves in a worn-out prescript of respectability, and when the exigencies of humanity at large, rather than the vested interests of a few persons, form the matter for consideration—the study of the lives of the departed great becomes as much a duty as a pleasure. ... The life of many a working man, of the lowest grade, might be brought forward in proof of what we assert; and the "pursuit of knowledge under difficulties" draws many of its most powerful illustrations from the lives of the lowly.\textsuperscript{152}

\section*{Whewell's Impact}

While Whewell’s \textit{Philosophy} elicited criticism, primarily because British commentators distrusted the Kantian elements of Whewell’s programme, Whewell’s place in a history of the waning of the idea of genius within science is central.\textsuperscript{153} Whewell was an important influence within the development of science from the 1830s.\textsuperscript{154} Whewell’s efforts in the British Association, his contributions to scientific terminology, and his staunch advocacy of the religious and moral aspects of science in his Bridgewater treatise meant that in the eyes of his peers Whewell was an adjudicator of repute in scientific matters.\textsuperscript{155}

Whewell laid much emphasis on his philosophy as providing the proper guidelines for scientific investigation, so that it could appear that the uninitiated would learn what the ‘fundamental ideas’ were, and so gain access to the Divine mind, only through reading Whewell.\textsuperscript{156} Nevertheless in respect of his attitude to the role of genius within

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science, Whewell’s scientific ideology was more inclusive than Davy’s had been. While maintaining an elitist vision of science, retaining a hierarchy and order based on the existence of geniuses, recast as ‘discoverers’, at the top, Whewell also negotiated a place within the scientific corpus, for the ordinary scientific investigator. In Whewell’s view, only discoverers could initiate change within science, but the ordinary scientific investigator was also able to make a contribution through the sweated labour of transforming discoveries into permanent knowledge, and thus establishing disciplines from the discoveries. Whewell’s downplaying of the role of individual genius within the scientific process helped to bolster his belief that progress in science stemmed from the collaborative and essentially egalitarian nature of the processes of observation and induction. While this did not represent a swing to outright collective democracy within British science, since élites were given a firmer philosophical basis than they had before, it is nevertheless suggestive of a shift away from the total individualism in the scientific enterprise, as displayed and advocated by the solitary Davy.

**Man’s Place in Nature**

Whewell’s work is important as it marks a shift away from language of genius towards other, less controversial terminology to describe greatness in science. Once set in train, this shift rendered the usage of ‘genius’ increasingly rare in élite scientific discussions. Yet one field within British science where references to genius did appear during the second half of the nineteenth century was in connection with questions concerning man’s place in nature. One issue raised by this debate was the question of whether genius could develop entirely naturally and evolve through the mechanism of natural selection, as the theory proposed by Charles Darwin (1809-1882) in his *Origin of Species* (1859) appeared to imply, or whether there was yet a place for the action of a Deity, a Force, or an Intelligence, all alternative names given for God, inspiring man with a divine spark. Throughout the debates, genius was one category that seemed to mark out humans, having no apparent corresponding expression in animals. Intimately connected with this shift, was the beginning, in the 1870s, of the breakdown of the common Victorian intellectual context, that of natural theology, that had been the

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baseline from which to conduct scientific discussions throughout the first half of the nineteenth century.\textsuperscript{158}

In his \textit{Origin}, Darwin had argued that the combination of the existence of heritable variations within a species, plus the production of more offspring than could survive, comprised the conditions under which 'favourable' variations tended to be preserved, and 'injurious' variations perished. Darwin termed the process 'natural selection', and held this to be the fundamental cause of the gradual and incremental adaptive species change that he identified. Initially keen to avoid condemnation for asserting an animal ancestry for humans, Darwin's \textit{Origin} was concerned principally with determining the process of animal and plant heredity; he made no direct mention of human heredity, nor, therefore, the origin of the higher human faculties. But it was the consequences of Darwin's theory for mankind that dominated the high Victorian debates on man's place within the frame of nature from the 1860s onwards.\textsuperscript{159}

Cannon has suggested the model of the demise of the 'Truth-Complex' to explain the shift in theories about the world when Darwin published his \textit{Origin}. Cannon argues that before Darwin, the truth complex for scientists contained God as the organising power of the corpuscles, units of matter that comprised the world, such that 'the only rational belief is that a good God has been the great organizer of the world, which left to itself would be a corpuscular chaos.' Darwin's theory 'merely shattered the Truth-Complex; and we are still playing with the pieces.'\textsuperscript{160} This explanation is helpful in characterising some of the later nineteenth-century scientists' attitudes towards conceptions of genius. There were few scientific discussions analysing the role and method of genius, partly because of the difficulties the idea of genius posed for some scientists who insisted on the role of God within the frame of nature. Some, like William Benjamin Carpenter and Charles Lyell (discussed below), felt unable to abandon the idea that God was the organising force behind the matter in the universe. But Darwin's theory caused a


bifurcation in which two distinct sorts of truth emerged: one orientated towards God, and the other towards Nature. Thus for men like Francis Galton, the only British scientist between 1830 and 1891 to publish his considerations of the question of genius, the effect of Darwin’s *Origin* ‘was to demolish a multitude of dogmatic barriers by a single strike, and to arouse a spirit of rebellion against all ancient authorities whose positive and unauthenticated statements were contradicted by modern science.’ Galton’s ‘modern science’ held no appeal to the action of an unseen and supernatural being. For Galton therefore, the true nature of something that he characterised as genius was within the reach of the trained scientist who employed rational statistical methods of analysis, since it was a natural phenomenon capable of being described by known and natural, not unknown and supernatural, laws.

This raises a point that became a vexed question for intellectual historians of the twentieth century: how to frame the degree to which different parts of British life were secularised. Between the appearance of Darwin’s *Origin* and the start of the First World War, there was a gradual secularisation, during which, from the 1880s, church attendance in England, France and Germany began to decline. Yet the change in religious attitudes precipitated by the implications of the doctrine of evolution was not limited to theologians; it also affected the religious understanding and attitudes of scientific men. More recently, historians of Victorian intellectual life, drawing on the work of social and political historians, have had to reassess the secularisation thesis in the light of evidence suggesting that religion remained a powerful shaping influence in Britain. Such an analysis helps to reveal the emerging complexity of the balance between the secular and the religious within British intellectual life.

This more nuanced interpretation is also evident from an examination of the ideas of those scientists who touched on the nature of genius within their discussions of man’s place in nature. These members of the British scientific élite each defined genius in different terms, the nature and extent of their religious beliefs determining how easily

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they could reconcile their ideas about genius to Darwin’s theory of natural selection. There were some already comfortable with the notion of an animal ancestry for man. For them, the phenomenon of genius could be interpreted as an extreme expression of mental ability and thus attributed to a natural, not a supernatural, origin. For instance, the evolutionist and philosopher Herbert Spencer (1820-1903), in his *Principles of Psychology* of 1855, expressed a materialistic belief in the natural genesis of organic forms, and contrasted this with what he perceived as the current belief in their supernatural genesis. Believing that ‘Life under all its forms has arisen by a progressive, unbroken evolution; and through the immediate instrumentality of what we call natural causes’, Spencer denied the special faculties that some, particularly theologians, deemed to mark out man from the rest of Creation. Spencer went on to assert that there was obviously ‘an immense difference in abstractness between the reasonings of the aboriginal races who peopled Britain, and the reasonings of the Bacons and Newtons who have descended from them’. Yet

‘no one alleges an absolute distinction between our faculties and those of our remote ancestors, or between the faculties of civilized men and those of savages. Fortunately, there are records showing that the advance towards conceptions of great complication and high generality, has taken place by slow steps—by natural growth.’

For others however, genius was one stumbling block that prevented both their full acceptance of the wholly natural mechanism of evolution, and its apparent implication of animal ancestry as the explanation for man’s existence. However, few naturalists tackled this question publicly. Both the scientists’ own difficulties with accepting the idea of the wholly natural inheritance of man, and the theologically sensitive nature of the investigations into man’s ancestry, meant that the public statements of such men were often diluted versions of their private musings. For example, the *Antiquity of Man* (1863) by the eminent geologist, Charles Lyell, drew on ideas he had been developing in his private notebooks since 1856. The book represented the culmination of Lyell’s

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work on the species issue and his discussions with Darwin in the preceding years, but his public expression was different from his private reflections. It was in some way seen as Lyell's responsibility to the public to summarise the existing evidence on the subject; to his scientific colleagues his responsibility extended further, since he was an eminent scientist writing on a subject to which he had so far contributed virtually nothing publicly. But his book reveals how little Lyell, a Unitarian, was in agreement with the doctrine of evolution by natural selection being the only mechanism to account for the existence of mankind.

In the *Antiquity*, Lyell publicly espoused a view different from the pure continuity of human development that Darwin advocated and had hoped Lyell would support. Warning that the gradual process of mankind's developmental history by such a process as natural selection did not account for the existence of genius, Lyell reworded thoughts he had expressed privately in his third journal on the species question in 1858. Lyell stated that,

'The birth of an individual of transcendent genius, of parents who have never displayed any intellectual capacity above the average standard of their age or race, is a phenomenon not to be lost sight of, when we are conjecturing whether the successive steps in advance, by which a progressive scheme has been developed, may not admit of occasional strides, constituting breaks in an otherwise continuous series of psychical changes."

The bottom line was that Lyell could not abandon the workings and interventions of the divine in nature, a Deity which was the source of the human soul and intellectual faculties. He argued that in respect to the 'occasional birth of an individual of superior genius', there was still a 'mighty mystery' that remained unexplained, since it was only the 'order of the phenomena, and not their cause, which we are able to refer to the usual course of nature.'

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Another eminent scientist for whom the role of a spiritual element was paramount, was the Unitarian physiologist William Benjamin Carpenter (1813-1885). He publicly adhered to a form of Providentialism in order to explain the first causes of the development of both the physical and mental physiology of humans, and the phenomenon of genius formed part of his discussions. Among many other points in fourth, fifth and sixth editions of his *Principles of Human Physiology* (1853, 1855 and 1864 respectively), Carpenter discussed genius in terms of how it related to the cerebrum, examining this subject in greater detail in his *Principles of Mental Physiology* (1874). His discussion reveals the degree to which he departed from Darwin’s theory. Insisting that mental activity was ‘entirely spontaneous or automatic; being determined by our congenital nervous Organization, and by the conditions of its early development’, he believed it a general principle that the will alone could never originate any form of mental activity. Thus,

'no one has ever acquired the creative power of Genius, or made himself a great Artist or a great Poet, or gained by practice that peculiar insight which characterises the original Discoverer; for these gifts are Mental Instincts or Intuitions, which, though capable of being developed and strengthened by due cultivation, can never be generated de novo.'\(^{171}\)

In discoursing on the first origin of this faculty, Carpenter appealed to the Divine as the initiator, since there was ‘no part of man’s Psychical nature, which does not speak to him, when it is rightly questioned, of something beyond and above himself.’ In Carpenter’s view, being aware of the order and constancy of Nature led to an idea of the existence of that invisible power, a power which he identified with the concept of a Divine Being: ‘And our own capacity for Reasoning, which we know not to have been obtained by our individual exertions, is a direct testimony to the Intelligence of the Being who implanted it.’\(^{172}\)

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\(^{170}\) William Benjamin Carpenter, *Principles of Human Physiology with their Chief Applications to Pathology, Hygiene, and Forensic Medicine* (London, 1842; fourth edition, 1853), pp. 773-774; the same discussion appears in the fifth edition (1855) on p. 542, and the sixth edition (1864) on p. 585. This is discussion is not in the first edition (1842), second edition (1844) or the third edition (1846).


\(^{172}\) Carpenter, *Mental Physiology*, p. 246; Carpenter’s emphasis.
Where Lyell had sought a more specific description of the ‘mighty mystery’ of the cause and origin of genius, Carpenter was content to view genius as an untraceable power. Like Lyell, Carpenter had been brought up a Unitarian. Carpenter’s father had been a Unitarian minister, and Carpenter’s willingness to leave the origins of genius under the category of an act of God indicates the power of his religious belief on his scientific thinking. His very description of genius was of a mental faculty or ‘a special gift of which no definite account can be given, the possessor of it not being himself able either to trace its origin, or to describe (save as regards its external conditions) its mode of working.’ Yet Carpenter believed that the First Cause of genius was not the real issue: what counted for him was how people used genius within the world. Hence, for Carpenter, an inability to explain such phenomena was to be no excuse to avoid the endeavour to develop them to the highest degree of which mankind was capable. Despite its mysterious mode of operation, genius was nevertheless part of the workings of a material and spiritual creation, governed by the ‘all-controlling agency of the Deity, and of His immediate presences throughout Creation’. God, for Carpenter, was immanent and transcendent. His beliefs did not alter: in January 1880 he stated that, ‘I deem it just as absurd and illogical to affirm that there is no place for a God in Nature, originating, dissecting, and controlling its forces by his will, as it would be to assert that there is no place in Man’s body for his conscious Mind.’

Others, feeling religious orthodoxy to be too narrow to explain all phenomena adequately, and viewing the new scientific naturalism as not broad enough, developed the idea of genius in different ways, locating their beliefs in different philosophies. Thus the naturalist and later spiritualist, Alfred Russel Wallace (1823-1913), believed that man’s higher faculties could not be accounted for simply by natural selection, and needed some recourse to another power. But this other power was not, for Wallace, the God celebrated in British natural theology. In a paper based on his review of Lyell’s _Antiquity_, and delivered to the Anthropological Society in 1864, Wallace insisted that

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173 Lyell, _Antiquity of Man_, p. 505.
175 Carpenter, _Mental Physiology_, pp. 503, 702.
177 For a discussion of those scientists who felt a broader philosophy needed to be negotiated to account for all phenomena, see Frank Miller Turner, _Between Science and Religion: The Reaction to Scientific Naturalism in Late Victorian England_ (New Haven, 1974), p. 2, and pp. 68-103 on Wallace.
what made humans unique within the organic world was their progression to a state where natural selection stopped operating on mankind’s physical state, and thereafter acted only on humanity’s mental and moral constitution. At the Exeter meeting of the British Association in 1869, Wallace declared his belief that natural selection was inadequate to account for the origin of mankind, a position he developed further in the Quarterly Review, and in 1870 in his Contributions to the Theory of Natural Selection. Remarking on Lyell’s opinions on the origin of man as they appeared in the tenth edition of his Principles of Geology (1868), Wallace remained unconvinced. In this edition, Lyell came out in more fulsome support of Darwin’s theory of natural selection: despite maintaining that Darwin had not ‘absolutely’ proved it, nevertheless he believed Darwin had ‘made it appear in the highest degree probable’ that species had developed in such a way. However, Wallace insisted that, ‘Neither natural selection nor the more general theory of evolution can give any account whatever of the origin of sensational or conscious life.’ While allowing that chemical and natural laws could account for the way in which man’s body was organised, still ‘the moral and higher intellectual nature of man is as unique a phenomenon as was conscious life on its first appearance in the world’, the mind of man being ‘itself the living proof of a supreme mind’. He argued that at a certain stage of human evolution, mental and moral qualities had become so important that natural selection acting on the physical condition was no longer the key mechanism, ‘because the development of his mental faculties would render important modifications of its form and structure unnecessary.’ Indeed, in 1870 Wallace stated that, ‘I do not consider that all nature can be explained on the principles of which I am so ardent an advocate’, asserting that certain mental qualities, among them musical appreciation and mathematical ability, were beyond the

179 Ellegard, Darwin and the General Reader, p. 84.
explanatory powers of the doctrine of natural selection. He thus retained a place for the action of supernatural agents.

As Wallace became increasingly interested in spiritualism through the course of the second half of the nineteenth century, so he became gradually more insistent on attention being paid to the spiritual nature of man. He reiterated this in his *Darwinism* (1889). Summarising the conclusion of Darwin’s theory as being that ‘man’s entire nature and all his faculties, whether moral, intellectual, or spiritual, have been derived from their rudiments in the lower animals’, Wallace judged this ‘not to be supported by adequate evidence, and to be directly opposed to many well-ascertained facts’. Thus Wallace attributed the higher intellectual ‘special’ faculties of man to ‘the existence of something which he has not derived from his animal progenitors—something which we may best refer to as being of a spiritual essence or nature, capable of progressive development under favourable conditions.’ These faculties, Wallace believed, pointed to ‘a world of spirit, to which the world of matter is altogether subordinate’.

However, to those scientists who were interested in the consequences of Darwinian interpretations of nature, genius was a peripheral concern. Within these debates, only one man, the scientist, statistician, anthropologist, eugenist and half-cousin of Darwin, Francis Galton (1822-1911), attempted an extended study in order to try to resolve what constituted genius, and how it came about. In his book, *Hereditary Genius* (1869), founded on wholly natural, Darwinian principles gleaned from both the *Origin*, (which Galton later explained ‘made a marked epoch in my own mental development’), and Darwin’s *The Variation of Animals and Plants under Domestication* (1868), Galton advanced the idea of genius as an inherited characteristic, transmitted from parent to offspring.

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188 For a discussion of the different shades of thought represented by the term ‘Darwinian’ in this period, see James Moore, ‘Deconstructing Darwinism: the politics of evolution in the 1860s’, *Journal of the History of Biology*, 24, no. 3 (Fall, 1991), 353-408; also James R. Moore, *The Post-Darwinian Controversies: A Study of the Protestant Struggle to Come to Terms with Darwin in Great Britain and America 1870-1900* (Cambridge, 1979), especially pp. 125-351.
189 Galton, *Memories*, p. 287; and see copy of letter, Francis Galton to Charles Darwin (24 December 1869), Galton Papers, University College London, Folder 245/5.
A variety of reasons help to explain why Galton became interested in mental heredity at this juncture. It is possible that Galton felt he was a marginal force in English science during the 1850s and 60s, and thus determined to gain entry to the inner Darwinian circle, from which he was largely excluded, by identifying an area of scientific enterprise, that he could make his own. In 1864, whilst studying heredity within races, Galton was drawn to the investigation of heredity within populations, and he began to investigate the inheritance of mental ability along patriarchal lines, which he believed was revealed by success in competitive careers. Besides the emphasis placed on the importance of intellectual accomplishment and good marriages by the élite professionals of Galton's own social group, hereditary intelligence itself was a subject that would appeal to fellow advocates of Darwin's theory. If Galton did manage to establish a biological and hence hereditary link in explaining the appearance of talent within families, some of the misgivings aired by Lyell in the Antiquity concerning the origin and cause of genius would be addressed. The next section explores the hereditarian element that was attached to the idea of genius within Britain from the 1860s.

**Hereditary Genius**

Attracted by the scientific naturalism he encountered in Darwin's *Origin*, Galton attempted to demonstrate statistically that certain mental attributes, particularly intelligence, were inherited in the same way as physical characteristics. He argued that these were heritable qualities that remained unaffected by immediate environmental and social factors, and first set about outlining these ideas in a pair of papers entitled 'Hereditary talent and character', which appeared in *Macmillan's Magazine* in June and August, 1865. Using statistical techniques derived from the Belgian Astronomer-Royal and statistician Adolphe Quetelet (1796-1874), who had devised the concept of the 'average man' in his *Sur l'homme et la développement de ses facultés* (1835; English translation 1842), Galton believed his own investigations showed 'that intellectual capacity is so largely transmitted by descent that, out of every hundred sons

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of men distinguished in the open professions, no less than eight are found to have rivalled their fathers in eminence.'

Galton elaborated on these ideas and displayed a more comprehensive working of the statistical law of 'deviation from an average', in his book *Hereditary Genius* in 1869. Aiming to demonstrate that 'high reputation is a pretty accurate test of high ability', Galton used the data available in the biographical resources, such as the 1865 edition of *Dictionary of Men of the Time*, and obituaries, such as *The Times* list for 1868. Using reputation as his yardstick of natural ability, Galton believed it was possible to compare the eminent men and their families. Confining his examination to a baseline of eminent men over fifty years old, Galton compared them with men of a similar age from the whole British male population. He reported that each estimate 'gave much the same result'. 'When I speak of an eminent man,' Galton explained, 'I mean one who has achieved a position that is attained by only one ... person in each 4,000.'

Besides this, Galton also argued from a hard hereditarian stance, insisting on the pre-eminence of nature over nurture: 'It is in the most unqualified manner that I object to pretensions of natural equality.' He believed that 'there must be a fairly constant average mental capacity in the inhabitants of the British Isles', and that 'deviations from that average—upwards towards genius, and downwards towards stupidity—must follow the law that governs deviations from all true averages.' This, Galton declared, led to the 'undeniable, but unexpected conclusion, that eminently gifted men are raised as much above mediocrity as idiots are depressed below it'. Galton thus determined to illustrate that genius was an innate quality that would rise to the surface no matter what conditions of poverty, or other hindrances of English social life the person experienced.

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Galton employed three arguments in asserting his belief that ability, and the power to establish a reputation, were innate and not tied to nurture. Firstly, he declared that ‘If a man is gifted with vast intellectual ability, eagerness to work, and power of working, I cannot comprehend how such a man should be repressed.’ Hence men gifted with high abilities ‘easily rise through all the obstacles caused by inferiority of social rank.’\footnote{Galton, \textit{Hereditary Genius}, pp. 39, 43.} Besides this, Galton believed that a comparison of England with other countries proved that the ‘hindrances of English social life, are not effectual in repressing high ability’ since ‘the number of eminent men in England, is as great as in other countries where fewer hindrances exist.’ Stating that culture was far more widely spread in America, than in England, and the education of the America middle and lower classes far more advanced, he insisted that, ‘for all that, America most certainly does not beat us in first-class works of literature, philosophy, or art.’ He argued that while fewer hindrances undoubtedly produced a much larger proportion of those he termed ‘persons of culture’, yet these were ‘not of what I call eminent men.’\footnote{Galton, \textit{Hereditary Genius}, pp. 40, 43.} Thirdly, Galton contended that ‘social hindrances cannot impede men of high ability, from becoming eminent.’ To test this he compared the sons of eminent men with the adopted sons of Popes and ‘other dignitaries of the Roman Catholic Church’, who, despite all the advantages of their environment, yet did not achieve eminence. Concluding that ‘no man can achieve a very high reputation without being gifted with very high abilities’, Galton hoped that he had shown reason to believe ‘that few who possess these very high abilities can fail in achieving eminence.’\footnote{Galton, \textit{Hereditary Genius}, pp. 41, 42, 43, 49.}

Galton embarked on his assessment by dividing the eminent subjects of his inquiry, representative of almost all aspects of the Victorian élite, into groups according to their profession or status. The range of his survey of mental ability extended from judges, to statesmen, the English peerage, commanders, literary men, men of science, poets, musicians, painters, and divines. In each case he listed the eminent descendants so that the significance of the hereditary transmission of ability, usually through the male line,
was highlighted. Throughout, Galton continued his method of gleaning his evidence from a range of biographical reference works, thus for instance he used Edward Foss’s well-known *The Judges of England* (1848-64) as his guide on the eminent within the judiciary, Lord Brougham’s *Historical Sketches of Statesmen Who Flourished in the Time of George III* (1839-43), supplementing his information where he deemed it too scanty with material such as ‘ordinary small biographical dictionaries’.

Collating his results, Galton tabulated his observations from different generations and different groups in order to facilitate comparison. Underlying his analysis was the assumption that male kin most closely related to the eminent man, such as brothers, fathers and sons, were the most likely to be eminent themselves; Galton believed the probability of eminence decreased the greater the hereditary distance, as would be the case for uncles, grandfathers and grandsons. In this, Galton was no doubt influenced by his reading sometime towards the end of 1864 of the writer George Henry Lewes’ (1817-1878) *The Physiology of the Common Life*, which is likely to have inspired him directly with its discussions on pedigree and the inheritance of genius. For Lewes both parents exerted hereditary influence on the child, with the physical and mental organisation of the one parent being modified by the organisation of the other: ‘When the paternal influence is not counteracted, we see it transmitted. Hence the common remark, “talent runs in families.”’ But one parent’s organisation might be more ‘potent’ and therefore would predominate:

‘A man of highly susceptible nervous organisation, a man of genius, marries a woman of powerful organisation, but of rather inferior brain: the influence of the mother is such, that the child turns out perhaps irritable, nervous, but intellectually feeble; or healthy, vigorous, and commonplace; or even stupid, and, it may be, idiotic. Or both parents may be remarkable for intellect, yet because their nervous systems have been developed at the expense of their nutritive systems, their child may be susceptible, but puny and feeble.’

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199 See, for example, his ‘Appendix to Judges’, Galton, *Hereditary Genius*, pp. 88-103.
Galton also addressed the question of the relative influences of the paternal and maternal sides in the production of genius, proposing a view that 'clashes with a commonly expressed opinion that clever men marry silly women.' Believing that 'as a matter of fact, a large number of eminent men marry eminent women', Galton warned against the 'common opinion that great men have remarkable mothers', arguing that, 'No doubt they are largely indebted to maternal influences, but the popular belief ascribes an undue and incredible share to them.' Content to attribute the origin of genius to the intellectual inheritance and combination of characteristics inherited from the parents, Galton thus accommodated what appeared to be anomalies in the system of nature. Lewes had identified instances of genius 'suddenly starting up in an ordinary family', and he had acknowledged that to understand this would mean 'to have mastered the whole mystery of heritage.' Galton however brought mental heredity within Darwin's mechanism of evolution by natural selection. By rendering genius a wholly natural, innate, biological and hereditable quality, Galton circumvented the problems raised concerning the First Cause of genius. For Galton, the preservation of favoured traits by natural selection was the first cause of the appearance of genius within certain families; a fact he believed he had demonstrated by his vast array of statistical evidence.

In analysing the final results, Galton attempted to dispel some misconceptions that he believed were popularly held concerning genius; these mostly related to the physical body of the supposed genius. Confessing his inability to state categorically whether or not genius was necessarily correlated with infertility, Galton maintained that such an investigation would be problematic. He believed a 'very serious' difficulty was that 'people will not agree upon the names of those who are pre-eminently men of genius, nor even upon the definition of the word.' Concerning the issue of whether geniuses were usually 'unhealthy, puny beings—all brain and no muscle—weak-sighted, and generally of poor constitution', again Galton expressed doubts. While he did not deny that many men possessing 'extraordinary mental gifts' also suffered 'wretched constitutions', he nevertheless insisted that these traits were not 'an essential or even the usual accompaniment.' The proof he offered was that, in universities, 'high wranglers and high classics have been frequently the first oarsmen of their year.' There was a

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culture of athleticism at British educational establishments such as Cambridge during the mid-Victorian era, where demanding physical exercise was seen as the necessary complement to the rigorous, intensive and competitive intellectual discipline, represented, for instance, by the Mathematics Tripos. From the 1840s, until at least the 1870s, those who commanded most respect were those who vigorously exercised body as well as mind.\(^\text{208}\)

For Galton, 'ability', a word he used interchangeably with 'genius' throughout his book, was composed of a mixture of several qualities. In attempting to define ability as it was represented in the eminent men he described, Galton set out his belief that,

'In order that a man should inherit ability in the concrete, he must inherit three qualities that are separate and independent of one another: he must inherit capacity, zeal, and vigour; for unless these three, or, at the very least, two of them, are combined, he cannot hope to make a figure in the world.'\(^\text{209}\)

Within this analysis, Galton had made a novel statement in categorising 'capacity, zeal, and vigour' as separate, biologically independent traits.\(^\text{210}\) In this Galton was primarily influenced by his reading of Darwin's *The Variation of Animals and Plants under Domestication* (1868), in which Darwin presented part of the evidence upon which the *Origin* had been established,\(^\text{211}\) and in which he tackled questions of human heredity and variability. The principal point Galton took from his reading of his half-cousin was Darwin's 'remarkable theory of Pangeneses'. In this theory, Darwin proposed the concept of *gemmules*, particulate elements circulating in the blood that determined the inheritance of different traits, with 'antagonistic gemmules' overmastering others 'in the struggle for points of attachment' and which then formed the character of a person. These gemmules in Darwin's view were derived from two causes: from unchanged and changed inheritance. Galton employed Pangeneses in order to try to explain the way in


\(^{209}\) Galton, *Hereditary Genius*, p. 84.


which 'apparent sports of nature are produced', such as 'the sudden appearance of a man of great abilities in undistinguished families'.

In Galton’s view, ‘The immediate consequence of the theory of Pangenesis is somewhat startling’, since it appeared to show that ‘a man is wholly built up of his own and ancestral peculiarities, and only in an infinitesimal degree of characteristics handed down in an unchanged form, from extremely ancient times’. Not only this, but characteristics such as ability were complex traits dependent on the expression of several hereditary elements. This highlights a change in usage of the word ‘genius’: none of the traits that Galton now deemed essential in order that ability would be expressed in a person was one that the Enlightenment and Romantic authors had attributed to genius. Indeed, it appears that, within British science, the implications of the term ‘genius’ had altered. Where Whewell and Brewster had included a faculty of imagination within the man of science, and had approached science from a natural theological point of view, Galton, in his context of scientific naturalism, orientated towards perseverance and the innate, entirely natural capabilities of man, denying the role of the supernatural within this process. ‘We must not permit ourselves’, Galton insisted, ‘to consider each human or other personality as something supernaturally added to the stock of nature’. Instead Galton envisaged a system whereby characteristics were inherited and expressed according to which different combinations dominated in different individuals. Thus each person, in Galton’s view, was to be viewed ‘rather as a segregation of what already existed, under a new shape, and as a regular consequence of previous conditions.

Bound up with this, Galton also called for a reassessment of the meaning of ‘individuality’, since his evidence led him to believe that ‘our personalities are not so independent as our self-consciousness leads us to believe. We may look upon each individual as something not wholly detached from its parent source’. Galton saw lives as separate but not entirely distinct parts of a whole:

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‘and this consideration goes far, as I think, to establish an opinion that the constitution of the living Universe is a pure theism, and that its form of activity is what may be described as co-operative. It points to the conclusion that all life is single in its essence, but various, ever varying, and inter-active in its manifestations, and that men and all other living animals are active workers and sharers in a vastly more extended system of cosmic action than any of ourselves, much less of them, can possibly comprehend.’

‘Ability’ or ‘genius’ therefore, was a complex trait that was composed of particular innate characteristics; but it did not include imagination, and nor did Galton allow for supernatural action in discussing how it appeared.

Yet Galton did not intend his work simply to establish the hereditability of mental characteristics; he proposed a eugenical response to the information he had compiled and analysed. Arguing that ‘judicious marriages during several consecutive generations’ could produce a highly gifted race of men, he emphasised the responsibility one generation owed to the next, highlighting that ‘it is a duty we owe to humanity’ to investigate the scope of the ‘enormous power’ each generation had over the natural gifts of those that followed. Galton insisted that this responsibility involved a duty to ‘exercise it in a way that, without being unwise towards ourselves, shall be most advantageous to future inhabitants of the earth.’

The Reception of *Hereditary Genius*

*Hereditary Genius* was widely reviewed in British newspapers and periodicals, but it was not received with universal approbation. By Galton’s own admission, ‘The verdict which I most eagerly waited for was that of Charles Darwin, whom I ranked far above all other authorities on such a matter.’ Darwin’s verdict was quick in coming (Darwin’s letter arrived in December; *Hereditary Genius* had been published in the November), but while couched in some glowing terms, (‘I do not think I ever in all my life read anything more interesting and original—and how well and clearly you put every point!’ Darwin wrote), it was not an utterly resounding endorsement of the full
extent of Galton's theory. Darwin disliked the word 'genius' and all it implied. As he wrote to Galton, 'You have made a convert of an opponent in one sense, for I have always maintained that, excepting fools, men did not differ much in intellect, only in zeal and hard work; and I still think this is an *eminently* important difference.'

Galton was clearly relieved at Darwin's letter, admitting that it meant a lot to him that someone like Darwin whom he admired, and whose *Origin* had profoundly affected him, should support his work: 'there is no one in the world whose approbation in these matters can have the same weight as yours.' This relationship worked in two directions. Galton offered some support on sticky issues of human mental organisation from the hereditarian, Darwinian evolution point of view, whilst Darwin's approbation afforded Galton a certain legitimacy, confirming his status as a co-worker in the new Darwinian world.

Previous studies of the reception of Galton's work have argued that the audiences assessing the work fell into distinct groups, with the positive reactions emanating from the scientific quarters, and the negative responses springing from the nonscientific sections of society. However, more recent investigations have indicated that, although the strongest following for Galton's work did emerge from the scientific community, the reception of Galton's work was not necessarily as negative as other historians have suggested. While some articles highlighted discrepancies or weaknesses in the argument, none entirely rejected the system Galton proposed.

Praise for Galton's book came most forcefully from Alfred Russel Wallace, who, although supportive, believing Galton to be 'an original thinker', Wallace suggested 'his book will take rank as an important and valuable addition to the science of human

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218 Charles Darwin to Francis Galton (3 December 1869), as published in Galton, *Memories*, p. 290; Darwin's emphasis.
nature’, yet refrained from a detailed analysis of Galton’s theory. Galton clearly convinced one other scientific reviewer of his claims to the Darwinian coterie, who judged it ‘an able contribution to the Darwinian doctrine of Natural Selection’, with another anonymous reviewer in The Times observing that ‘The Darwinian theories are capable of infinite expansion, and Mr. Galton, in this volume, has asserted that they hold good not only throughout the whole organic world, but that mental and moral, as well as physical, phenomena may be explained and controlled by their application.’

Although reviewers in literary and political journals also hailed the work as valuable, no reviewer in the year following its publication agreed completely with Galton’s insistence on the wholly hereditarian nature of mental capacity, preferring to leave some room for Lockean environmental and social factors. This can be seen, for instance, in the 1870 review in The Times: ‘Mr. Galton is a little too anxious to array all things in the wedding garment of his theory, and will scarcely allow them a stitch of other clothing.’

Other reviewers however were overtly hostile, especially those of a religious bent. Both Catholic and Protestant organs alike challenged both Galton’s method and conclusions, criticising his Darwinian naturalism with its reduction of the study of man to a purely naturalistic level and its ignoring the existence of the soul. Such was the position of an anonymous reviewer in the British Quarterly Review, a Congregational/Baptist journal of criticism:

‘There have always been some sacred regions to which the man who could not part with faith in the living God has prided himself that even Materialism could not penetrate. The Ego, the individuality, that which constituted the centre of his consciousness, has said, ‘I came forth from God.’ … This respectable ‘delusion’

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is now swept away by accomplished Darwinites, and our author has planted a battery of averages, statistics, and facts, drawn from hundreds of ‘biographical dictionaries,’ and has fired a broadside into the citadel.’

The brief review largely focused on Galton’s discussion of the eminence of divines, and took exception to Galton’s suggestion of the weak constitution and the frequent presence of invalidism within the progeny and predecessors of eminent divines. Galton’s statements, the reviewer asserted, ‘suggest a good many other remarks of a character that must offend all who have any deep respect for piety and religious earnestness.’

A survey of sermons that were published during this period also reveals a tendency among Protestant theologians to divert attention away from the genius itself, and towards what they perceived to be the origin of the phenomenon: God. Thus, in a lecture published in 1859 on The Idolatry of Genius, the Scottish doctor of divinity, William Lindsay Alexander, warned that the worship of genius detracted attention from God: ‘Why should men lose sight of the Giver because of the brilliancy of His gift? Why, especially in a Christian country, should men render to a worm of the dust that homage which is due only to God?’

Similarly in a sermon to mark the tercentenary of the birth of Shakespeare, R.W. Dale, the leading British Congregationalist clergyman of his day, a prolific writer on theological subjects and an active participant in educational reform, reminded his audience, ‘We are doing homage to human genius; it is well that we should remember that Genius is the gift of God.’

Dale’s sermon also illustrates the point that ‘genius’ in some circles had endured as a positive word within the English language. Dale insisted that it was not the external wealth of England that contributed ‘to her greatness and glory’. Instead, Dale highlighted that native capacity of the English people, ‘their intellectual robustness and their moral strength’ had been developed ‘mainly indeed by their religious faith, but

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also by the illustrious poets, philosophers, theologians, and statesmen whom God in His
goodness has sent us in the most critical times of our history.’ Thus Dale styled genius
as the preserver of England: in discussing the revolution in Europe, Dale referred to
Englishmen having listened to ‘the lurid, stormy eloquence of Edmund Burke’, and,
‘while our fathers listened to his denunciations and prophecies of evil, their hearts were
filled with a supernatural horror and hatred of the principles of the Revolution’. Thus it
was that the ‘moral and intellectual character of a nation, the true secret of its greatness
and stability, is largely derived from its men of genius.’

Natural Genius

Many subsequent British scientific works during the 1870s that touched on genius also
emphasised the naturalistic side of genius within science. Having delayed confronting
the issues behind relating his theory of natural selection to mankind, Darwin eventually
published his *Descent of Man* in 1871, to tackle the vexed questions of human ancestry.
Since the publication of the *Origin*, colleagues and reviewers had questioned Darwin as
to whether the doctrine of evolution by a process of natural selection should, or could,
explain human origins. Investigating human ancestry was commonly held by reviewers
to rest in the domain of the theologian, not the naturalist. But in order to affirm what he
believed was the truth of his theory, Darwin felt compelled to demonstrate that animals
and humanity were partakers of the same Nature.

In the few passages in which he discussed genius in the *Descent*, Darwin’s almost
complete reliance on Galton’s work underlines Galton’s unique place within British
science in terms of the extended treatment of the issues concerning intellectual heredity.
Darwin had incorporated a mass of verified information on heredity in his book on
*Variation* in 1868, and believed he had the weight of evidence on his side concerning
standard inheritance so that, ‘in regard to mental qualities, their transmission is manifest
in our dogs, horses, and other domestic animals. Besides special tastes and habits,
general intelligence, courage, bad and good temper, &c., are certainly transmitted.’

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Having asserted what he believed to be a self-evident truth from the previous years of work on inheritance, Darwin felt in a position to make the analogy with mankind, but drew his evidence straight from Galton, endorsing the idea that

'With man we see similar facts in almost every family; and we now know through the admirable labours of Mr. Galton, [Darwin included here a footnote to Hereditary Genius] that genius, which implies a wonderfully complex combination of high faculties, tends to be inherited.'

Darwin’s brief attempt in his Descent to explain the phenomenon of genius reveals his wholly naturalistic interpretation of the phenomenon. He preferred to discuss ‘intellectual faculties’ as a whole, thus couching his ideas in language that was more neutral than Galton’s choice of the word ‘genius’. Asserting that the ‘intellectually superior’ would tend to ‘succeed best in all occupations, and rear a greater number of children’, he proceeded to argue that ‘in civilised nations there will be some tendency to an increase both in the number and in the standard of the intellectually able.’ Darwin picked up discussion of the possible sterility of the intellectually able: ‘It has often been objected to views like the foregoing, that the most eminent men who have ever lived have left no offspring to inherit their great intellect.’ Quoting Galton’s statement that he was unable to solve the problem of whether genius was infertile, Darwin then slipped in a reference to genius without defining what he meant, and apparently took Galton’s views on genius as synonymous with the jargon he had adopted of ‘intellectual faculties’. Referring to his Origin, Darwin drew what he believed was an obvious comparison between physical and mental structures:

'In the case of corporeal structures, it is the selection of the slightly better-endowed individuals, and not the preservation of strongly-marked and rare anomalies, that leads to the advancement of a species. [Darwin’s footnote: ‘Origin of Species’ (fifth edition, 1869), p. 104.] So it will be with the intellectual faculties, namely from the somewhat more able men in each grade of society succeeding rather better than the less able, and consequently increasing in number, if not otherwise prevented. When in any nation the standard of intellect and the number of intellectual men have increased, we may expect from

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236 Darwin, Descent, I, pp. 110-111.
237 Darwin, Descent, I, p. 171.
the law of the deviation from an average, as shewn by Mr. Galton, that prodigies of genius will appear somewhat more frequently than before.\(^\text{239}\)

Darwin cited his kinsman several times in his *Descent* of 1871, as well as in the section on inheritance in the second edition of *The Variation of Animals and Plants under Domestication*, which appeared in 1875.\(^\text{240}\) But in using Galton's book in his *Descent*, Darwin was not aiming to promote a particular idea of genius; instead, Galton's book enabled Darwin to emphasise his own belief in the fundamental differences in the mental powers between the sexes. Using *Hereditary Genius* as supporting evidence, Darwin employed it as an example 'so well illustrated by Mr. Galton', of the application of the law of the deviation from averages to argue that 'if men are capable of decided eminence over women in many subjects, the average standard of mental power in man must be above that of woman.' Hence Darwin located the mental faculties that had previously been the qualities of genius from the eighteenth century, firmly in the male:

'to avoid enemies, or to attack them with success, to capture wild animals, and to invent and fashion weapons, requires the aid of the higher mental faculties, namely, observation, reason, invention, or imagination. These various faculties will thus have been continually put to the test, and selected during manhood; they will, moreover, have been strengthened by use during this same period of life. Consequently, in accordance with the principle often alluded to, we might expect that they would at least tend to be transmitted chiefly to the male offspring at the corresponding period of manhood.'\(^\text{241}\)

Yet Darwin did not entirely share Galton's hard hereditarian analysis of intellectual ability. At this stage of his discussion, Darwin deferred to 'a great authority'\(^\text{242}\) in providing a definition of genius. The 'great authority' was John Stuart Mill, for whom the genius performed an important role in the development of society by acting to 'commence new practices, and set the example of more enlightened conduct, and better taste and sense in human life', and without whom, 'human life would become a stagnant

\(^{239}\) Darwin, *Descent*, I, p. 172.  
\(^{241}\) Darwin, *Descent*, II, pp. 327-328.  
pool.243 Using Mill’s interpretation, Darwin suggested that genius required a higher degree of energy and determination, an interpretation that he then applied this to his account of sexual difference:

‘when two men are put into competition, or a man with a woman, both possess every mental quality in equal perfection, with the exception that the one has higher energy, perseverance, and courage, this one will generally become more eminent, whatever the object may be, and will gain the victory.’244

Darwin then included a footnote from Mill’s The Subjection of Women (1869), and quoted, ‘The things in which man most excels woman are those which require most plodding, and long hammering at single thoughts.’245 Drawing the parallel, Darwin asked, ‘What is this but energy and perseverance?’246 For Darwin such a man ‘may be said to possess genius—for genius has been declared by a great authority to be patience; and patience, in this sense, means unflinching, undaunted perseverance.’247 Darwin did not identify this second ‘great authority’, but it seems likely to have been the French naturalist and philosopher Georges-Louis Leclerc, Comte De Buffon (1707-1788), who declared ‘La génie n’est autre chose qu’une grande aptitude à la patience. (Genius is nothing else than a great aptitude for patience).’248 Yet other authors over the course of the late eighteenth and nineteenth centuries had also developed the idea of genius as patience or perseverance. Isaac Disraeli, for instance, had asserted that ‘Patience is a necessary ingredient of genius.’249 Similarly, the Scottish author Thomas Carlyle (1795-1881), who subsequently visited Darwin in 1875, had averred that genius ‘means transcendent capacity of taking trouble, first of all’.250

Darwin did not accept this idea unreservedly however, suggesting tentatively that ‘this view of genius is perhaps deficient; for without the higher powers of the imagination and reason, no eminent success in many subjects can be gained.’ Yet this is where, for

244 Darwin, Descent, II, p. 328.
246 Darwin, Descent, II, p. 328n.
248 Georges-Louis Leclerc, Comte De Buffon: ‘genius is only patience’ is cited and the recording of the saying is attributed to Madame de Staël in A. Stevens, Madame de Staël; A Study of Her Life and Times: the First Revolution and the First Empire (London, 1881), 2 vols., I, p. 61.
250 Thomas Carlyle, History of Friedrich II of Prussia called Frederick the Great (London, 1858-65), 6 vols., I (1858), Book iv., Chap. iii, p. 407.
Darwin, the theories of natural and sexual selection came into their own. Darwin wholly internalised genius as it was represented by patience, imagination and reason, and fixed these qualities within the male. He wrote,

"these latter as well as the former faculties will have been developed in man, partly through sexual selection,—that is, through the contest of rival males, and partly through natural selection,—that is, from success in the general struggle for life; and as in both cases the struggle will have been during maturity, the characters thus gained will have been transmitted more fully to the male than to the female offspring."\(^{251}\)

Darwin thus incorporated genius into his wholly naturalistic approach to human development, espousing a conception of genius as a mixture of heredity, manliness and hard work.

Couching genius in naturalistic terms, Darwin avoided all mention of divine inspiration that contemporaries, such as Lyell and Carpenter, had retained. Discussion of the First Cause of genius would, as Lyell had found, prove impossible to locate with certainty unless one accepted, as Darwin did, the theory of evolution by natural selection to be the First Cause. For Darwin there was nothing unknowable or mysterious, or even especially unique, about genius; his treatment of it in the *Descent* reveals how the faculties he attributed to genius were shared by mankind and inherited, and how these could be improved by human efforts. Thus, in concluding his discussion of the mental powers of men and women, Darwin suggested that,

"In order that woman should reach the same standard as man, she ought, when nearly adult, to be trained to energy and perseverance, and to have her reason and imagination exercised to the highest point; and then she would probably transmit these qualities chiefly to her adult daughters."\(^{252}\)

Imagination and the Scientist

Meanwhile, with his interest stimulated by his own investigation into the hereditary nature of genius and by a similar investigation by the Swiss biologist Alphonse de Candolle (1806-1893), Galton began to investigate the nature of the English scientific character. In an article in the *Fortnightly Review*, Galton briefly outlined what he believed to be the factors that formed scientific men. In doing so he emphasised the need for fact over the operation of the imagination in the scientific enterprise: ‘Curiosity about realities, not about fictions of the imagination,’ he announced, ‘is the motive power of scientific discovery, and it must be backed up by a frank and fearless spirit.’ It was this dedication to objectivity that Galton believed distinguished the methods of the theologian and the scientist: ‘the religious man is attached by his heart to his religion, and cannot endure to hear its truth discussed, and he fears scientific discoveries’ which, ‘in some slight way’, might ‘discredit what he holds more important than all the rest.’ The man of science on the other hand, ‘seeks truth regardless of consequences; he balances probabilities, and inclines temporarily to that opinion which has most probabilities in its favour, ready to abandon it the moment the balance shifts, and the evidence in favour of a new hypothesis may prevail.’

De Candolle’s *Histoire des sciences et des savants depuis deux siècles* (1873) proposed an environmentalist interpretation of eminence, that eminent scientists emerged in particular countries according to whether the right conditions were present to foster them. Disagreeing with de Candolle’s findings, Galton determined to investigate the factors that English men of science felt had influenced their careers, intending to supply ‘what may be termed a Natural History of the English Men of Science of the present day’. Galton thus sent out questionnaires during 1873 and the beginning of 1874, ‘a daring undertaking’ he later termed it, to 180 men, every Fellow of the Royal Society who had filled an important post. He requested they answer ‘a multitude of Questions

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255 Galton, ‘On the causes which operate to create scientific men’, p. 349.
needful for my purpose, a few of which touched on religion and other delicate matters', emphasising that the details would be used only for the purposes of a statistical study. Galton published the compiled results as _English Men of Science: Their Nature and Nurture_ (1874), believing that, 'The results of the inquiry showed how largely the aptitude for science was an inborn and not an acquired gift, and therefore apt to be hereditary.' De Candolle's book drew on personal and statistical data to demonstrate how environmental factors influenced the rates at which European countries produced eminent scientists; although Galton remained an hereditarian, de Candolle's book did broaden his outlook considerably. Galton's object was to identify in quantitative terms the genius for science, which he believed was a characteristic of the English as a nation, to distinguish between nature ('all that a man brings with himself into the world'), and nurture, ('every influence from without that affects him from birth'). Ranging over a broad sweep of characteristics, Galton's questionnaire required the scientists to make judgments about their own characteristics, including their memory, health and energy of body and mind, as well as their views on 'originality or eccentricity' and 'special talents'. His results showed that 56 of 91 scientists in his summary of the hereditability of scientific talent believed that their scientific aspirations were innate rather than environmentally determined. Although Galton did admit of the influence of some environmental factors within the development of men of science, especially the influences of travelling, friends, tutors and early encouragement from families, he nevertheless insisted that these could only act to foster what were already present as 'innate tendencies'.

Galton first described those that he termed qualities of 'general utility', among which he included those of energy, health, business habits, memory, and perseverance. Indeed,

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261 Galton, _English Men of Science_, p. 12.
Galton reported, perseverance was a ‘quality on which great stress is laid’, and it appears Darwin himself viewed his mental determination, not flashes of brilliance, as the seat of his particular ability for science. This vision of scientific work celebrated the plodding reliability of the bourgeois Victorian ideal of hard work and effort discussed above (pp. 133-136). It is also a profoundly moralised vision, characterising self-discipline as triumphing over the frailties of flesh and spirit. This is indicated in the onus placed on perseverance, a stoicism to which Darwin referred privately in his Autobiography, it was a character trait that brought about success. Self-discipline had become the cardinal Victorian virtue, as well as a key criterion of Englishness, and was glorified for instance by Samuel Smiles in his book, Character (1871), as ‘the primary essence of character’, and ‘is at the root of all the virtues’. Indeed, in Smiles’ view,

‘Work is one of the best educators of practical character. It evokes and disciplines obedience, self-control, attention, application, and perseverance; giving a man deftness and skill in his special calling, and aptitude and dexterity in dealing with the affairs of ordinary life.’

Galton then turned his attention to those that he deemed ‘of especial service to scientific men’. He found independence of character to be a key quality, with fifty of his correspondents claiming to possess it ‘in excess’, as well as ‘a prevalent taste for mechanics’, many of them having constructed and invented machines from youth. Galton’s findings stressed the naturalistic turn of mind of the eminent English scientist, nowhere more so than in his discussion of the religious feeling of the man of science. Characterising this as being ‘necessarily of a peculiar character’, Galton argued that scientists, ‘Being thoughtful men’, and ‘exacting of evidence and questioners of authority’, often felt compelled to ‘sturdily object to much that others accept easily.’ Thus Galton averred that religion ‘is not actively accepted by many of those who

264 Galton, English Men of Science, p. 103.
265 For an indication of this sentiment, see the account in Browne, Darwin: The Power of Place, p. 400.
269 Smiles, Character, p. 88.
describe themselves as religiously inclined: they seem singularly careless of dogma, and exempt from mysterious terror.\textsuperscript{270}

Galton was adamant that the successful man of science relied on a careful balance of qualities, stating that ‘energy, health, steady pursuit of purpose, business habits, independence of views, and a strong innate taste for science’ were ‘generally combined in the character of a successful scientific man.’ Deficiency in one or more of these qualities meant that ‘success becomes impossible’, unless its absence was ‘appropriately supplemented by other qualities or conditions.’ But to attain the ‘highest order of success’, two criteria had to be filled:

‘first, the qualities of the man must either be good all round, or else he must be so circumstanced as to be able, when the need arises, to supplement his deficiencies by extraneous help; secondly, he must have some very useful qualities highly developed.’\textsuperscript{271}

In his \textit{English Men of Science}, Galton devoted only two pages to an explicit discussion of genius and what was necessary in order to obtain ‘the highest order of success’.\textsuperscript{272} While Darwin privately insisted on methodical working, steadiness, and studiousness,\textsuperscript{273} Galton concluded his book by reaffirming the key part that a spark of genius was still to play in some form. However, Galton did not imply that this spark was a divine gift, more a function of a particular manner of mental activity, which anyone could exhibit. Galton thus stated his belief that,

‘what is generally meant by genius, when the word is used in a special sense, is the automatic activity of the mind, as distinguished from the effort of the will. In a man of genius, the ideas come as by inspiration; in other words, his character is enthusiastic, his mental associations are rapid, numerous and firm, his imagination is vivid, and he is driven rather than drives himself.’

But for Galton, this was not an exclusive selection of individuals: ‘All men’, Galton maintained,

\textsuperscript{270} Galton, \textit{English Men of Science}, pp. 74-121, 122, 124-126, 127, 128-129.
\textsuperscript{272} Galton, \textit{English Men of Science}, p. 233.
\textsuperscript{273} Browne, \textit{Darwin: The Power of Place}, p. 399.
'have some genius; they are all apt, under excitement, to show flashes of unusual enthusiasm, and to experience swift and strange associations of ideas; in dreams, all men commonly exhibit more vivid powers of imagination than are possessed by the greatest artists when awake.'

For him, the capacity for hard work was important, but it was not sufficient in itself in order to achieve success: 'Sober, plodding will', Galton opined, 'is quite another quality, and its over-exercise exhausts the more sprightly functions of the mind, as is expressed in the proverb, "too much work makes a dull boy." But no man is likely to achieve very high success in whom the automatic power of the mind, or genius in its special sense, and a sober will, are not well developed and fairly balanced.'

Despite his belief in the necessity of some form of genius to achieve eminence, Galton's investigations into how scientists and others thought revealed that the view of the imagination as an important faculty in scientific enterprise was not widely shared by his scientific colleagues. During the 1870s, Galton attempted to apply quantification to psychological processes, and between November 1879 and April 1880, he sent further questionnaires, this time to public school boys and to friends at the Royal Society, the Royal Institution and the Royal Geographical Society, in order to assess their capacities of mental imaging, their abilities to visualise images in their mind's eye, and to investigate whether this ability was hereditary. His study of mental imaging revealed that while most men, women and children imaged vividly, the same was not true of the scientist. 'To my astonishment,' Galton declared, the vast majority of scientists 'protested that mental imagery was unknown to them, and they looked on me as fanciful and fantastic in supposing that the words 'mental imagery' really expressed what I believed everybody supposed them to mean.' Summarising his results in an article in the 1880 issue of *Mind*, Galton concluded that imaging had not actually been lost in 'the highest minds', but was instead 'subordinated', and 'ready for use on suitable occasions'. Yet this came with warnings: Galton regarded 'an over-readiness to perceive clear mental pictures; as 'antagonistic to the acquirement of habits of highly

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generalised and abstract thought.' The successful man of science in Galton's view was one in whose character an imaginative element was balanced by a rational will committed to hard work.  

Conclusion

The only scientific work published in Britain to address the idea of genius expressly during the period between 1830 and 1891 was Galton's *Hereditary Genius*, which sought to establish a wholly naturalistic, Darwinian base for considerations of genius. In his work, the concept of genius, in terms of its relation to science, had taken on a form of meaning very different from its Enlightenment and Romantic roots. What is apparent from this and other élite scientific literature published during the period from 1830 to 1880 is that the spiritualised interpretation of the imagination was less and less believed to be a characteristic of the emerging objective British scientist. Whewell, Brewster and to a lesser extent Galton, all agreed that imagination in some form played a part within scientific work, but by the 1870s this was less a view shared by scientists themselves, as Galton's investigations into the workings of the scientific mind indicate. For both Whewell and Galton 'genius' contained none of the spiritualised element that had been a feature of the British Enlightenment conception of genius. As Galton discussed the man of genius, he was a figure whose 'ideas come as by inspiration', but for Galton this was not the same as *divinely* inspired.

Although the category of 'genius' had remained within certain areas of élite thought, its characteristics and the ways in which it was expressed had changed. Yet the research in this chapter shows that these changes formed no straightforward shift. Each thinker considered above devised their own conception of 'genius', and conceived it in relation to not only their views on the natural world, but also their religious belief or unbelief. The High Churchmen, the Protestant reviewers in religious journals, and those clerics whose printed sermons during the mid-Victorian period touched on the phenomenon, all emphasised, to varying degrees, the spiritual dimension of genius, defending the concept of genius as something God-given. It was a dimension that also impacted on

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the use of the term in some élite scientific discourse. An examination of the little that scientists other than Galton published directly concerning 'genius' indicates that, for those who still possessed the vestiges of a religious faith, following Galton in characterising genius in wholly naturalistic terms was problematic.
CHAPTER 4: GENIUS AND THE PSYCHIATRISTS

Introduction

As science became increasingly specialised, with the emergence of sciences such as psychiatry within this period, the historian might expect 'genius', as a mental phenomenon, to be brought more fully under the remit of the psychiatric profession. There has been a considerable amount of scholarly work concerning the emergence and consolidation of British psychiatry as a newly self-conscious group during this period, particularly with reference to the reliance on the asylum as the location for treating and housing the mentally ill. The increasing corporate identity of the psychiatrists encouraged them to assert their monopoly over the diagnosis and treatment of mental problems. This chapter therefore investigates discussions of 'genius' from the perspective of late-nineteenth-century British psychiatry.

In doing so, this chapter assesses the precise nature of the British psychiatric reaction to continental research, developed most notably by the Italian criminal anthropologist Cesare Lombroso, that proposed a link between genius and pathology, particularly insanity. Only two British authors saw fit to publish works dedicated to the issue of the insanity of genius as it emerged in the late nineteenth century. Under scrutiny therefore are the works of an English scientific populariser, Henry Havelock Ellis (1859-1939), and a Scottish journalist, John Ferguson Nisbet (1851-1899). Analysis

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then shifts to dissect the reactions of the British psychiatric élite to these ideas, as seen in their articles and books. The names that dominated the psychiatric profession in the mid- to late-nineteenth century all contributed in some form to the psychiatric discussion concerning the nature of genius. Heading this late nineteenth-century psychiatric élite were alienists such as John Charles Bucknill (1817-1897) and Henry Maudsley (1835-1918), along with Daniel Hack Tuke (1827-1895), William Wotherspoon Ireland (1832-1909), and James Crichton-Browne (1840-1938).

The majority of relevant articles discussed below appeared in one of the two specialist psychiatric journals that appeared from the late 1840s and early 1850s, the principal organs of the emerging specialism. The emergence of these periodicals was part of the continuing proliferation of journals being used as tools to advance professional interests, a trend which had peaked during the first half of the nineteenth century. The Asylum Journal, later the Journal of Mental Science (JMS), was founded in 1853 by the Medico-Psychological Association, British psychiatry's principal corporate body. Rooted in psychiatry's research base of the new county asylums that were built under the 1845 Lunacy Act, this periodical provided aspiring asylum doctors with a forum in which they could develop ideas, publish research papers, and build up careers. As such the JMS helped to launch psychiatry as a reliable part of medical science. However, with the editorship and production of the JMS falling into the hands of the élite of the psychiatric profession within the first ten years of its existence, it ceased to serve a common purpose. Instead, it became the mouthpiece for the individual editors in charge of it at any one time. For the purposes of the present research, all volumes from its inception in 1853 up to 1914 have been studied, providing important commentary on developments within élite psychiatric thought as it occurred under the editorship of a number of key figures within the psychiatric community, including Bucknill, Maudsley,
and Hack Tuke. It becomes evident from the *JMS* that the question of the existence of such a figure as the mad genius attracted very little public attention even among Lombroso's psychiatric counterparts in Britain. Further, a survey of English journals as given in the entire *Wellesley Index to Victorian Periodicals*, reveals that the notion of genius as a pathological entity was not taken up in the British highbrow periodical press.

The systematic sifting of the contents of the *JMS* has been supplemented by a comprehensive biographical analysis of the key individuals in Britain who published any material, opinions or results of investigations, about the pathological nature, or otherwise, of genius. Such a record highlights the interrelationships between different individuals involved in the issue, as well as providing a wider context for determining how much translation of ideas and books took place over international boundaries. In analysing the backgrounds and interests of the individuals concerned, providing their intellectual and professional contexts, it becomes possible to judge how pervasive the idea of the pathology of genius was in the late nineteenth century. Approaching this material from an historical viewpoint reveals the extent to which Becker's sociological analysis skews the understanding of the issue in the British context. The evidence that emerges reveals some important points about attitudes within British psychiatry in the twilight of the Victorian era.

**Pathologising Genius: the Continental Legacy**

Within the past twenty years, historians have investigated various strands of the legacy of the influential Jewish Northern Italian criminologist, anthropologist and psychiatrist, Cesare Lombroso (1835-1909). Accounts linking genius with insanity had appeared in

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8 The other specialist periodical, *The Journal of Psychological Medicine*, founded in 1846 by the alienist Forbes Benignus Winslow (1810-1874) was not as enduring as its rival, the *JMS*, being discontinued in 1883. As Lombrosian ideas of the pathology of genius were not fully introduced into British psychiatric literature before 1891, the scope of the *Journal of Psychological Medicine* falls outside the present study. On the *Journal of Psychological Medicine*, see W.F. Bynum, 'Theory and Practice in British Psychiatry from J.C. Prichard (1786-1848) to Henry Maudsley (1835-1918)', in Ogawa (ed.), *History of Psychiatry*, pp. 196-216: pp. 201-202.

French psychiatric literature from the 1830s. But it was translations of the work Lombroso, the most prominent, scientifically trained exponent of the theory of the insanity of genius, that most influenced the English literature on the connection between the two mental phenomena as it emerged in the 1890s. As a student, he had studied medicine at Pavia, and had begun work there in 1852, yet institutional recognition of Lombroso’s work came relatively late in his career. Holding a post in public hygiene and legal medicine at Turin University by 1876, he was only appointed Professor of Psychiatry at that university in 1896. It was only later still, in 1906, with his international influence on the wane, that he was appointed Professor of Criminal Anthropology.

Outside Italy, the bulk of historical scholarship on Lombroso has centred on the reception of his criminological work, the study of which helps to shed light on the reaction to Lombroso’s work on genius. Robert Nye’s incisive discussion in connection with France, Richard Wetzell’s study of Germany, and Irina Sirotkina’s analysis of Russia, have demonstrated that, while Lombroso’s ideas proved popular among his fellow countrymen not all countries unquestioningly accepted Lombroso’s criminal anthropological ideas. Lombroso’s L’uomo delinquente, conceived in 1859, but only published in 1876 (with a second volume in 1889), claimed to have identified ‘criminal man’ as a distinct anthropological type. Drawing influences from French and Italian

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10 See François Leuret, Fragments psychologiques sur la folie (Paris, 1834), and Louis-Françisque Lélut, Du démon de Socrate, spécimen d’une application de la science psychologique à celle de l’histoire (Paris, 1836), who both argued that madness and genius could be mixed and coexist in the same person.


16 See, for instance, the discussion in Jaap van Ginneken, Crowds, Psychology, and Politics: 1871-1899 (Cambridge, 1992), pp. 52-99 on the work of followers of Lombroso, such as Enrico Ferri and Ferri’s pupil, Scipio Sighele.

17 See Cesare Lombroso, L’uomo delinquente studiato in rapporto alla antropologia, alla medicina legale ed alla discipline carcerarie (Milan, 1876).
positivism, as well as English evolutionary theory and German materialism, he
developed a specific evolutionary theory of atavistic criminal types, based on
anthropometric measurements. Using physiognomy and phrenology to uncover the
criminal’s ancestral past, and analysing Italy’s perceived backwardness in terms of
physical anthropology and evolutionary biology, Lombroso asserted his view that
criminality was the sign of a primitive form of nature within an advanced society.\[18\]
Lombroso believed that criminals were characterised by distinctive features, visible
anatomical signs or stigmata, such as a smaller skull, insensitivity to pain and left-
headedness, signs that Lombroso cast as atavistic, indications of biological throwback
to an earlier stage of evolution.\[19\]

Lombroso continued to develop and alter his ideas as new theories came to prominence.
Among the most significant of these were the elements of French degenerationist
thinking that were subsumed into Lombroso’s work, being integrated into later editions
of his books and tacked on to his core views on atavism.\[20\] The idea of degeneration,
implying some decline from a real or ideal past type or condition, formed part of the
rhetoric of nineteenth-century science. It was a figurative device and an idea that
pervaded biology, natural history, anthropology and medicine. The theory of
degeneration was first systematically applied to medicine, particularly psychiatry, by the
French physician at the St Yon asylum near Rouen, Bénédict Augustin Morel (1809-
1873) in his *Traité des dégénériscences physiques, intellectuelles, et morales de
l’espèce humaine* of 1857. Emphasising the hereditarian aspect of different forms of
degeneration, Morel proposed that degeneration was incurable, ‘*a morbid deviation of a
primitive type*’ that would eventually terminate in familial extinction.\[21\]

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\[19\] Wetzell, *Inventing the Criminal*, p. 29.
\[20\] Pick, *Faces*, p. 121.
\[21\] B.A. Morel, *Traité des dégénériscences physiques, intellectuelles et morales de l’espèce humaine et
des causes qui produisent ces variétés maladies* (Paris, 1857), p. 5, my translation, Morel’s emphasis.

On French psychiatry and the development of the theory of degeneration, see Ian Dowbiggin,
‘Degeneration and hereditarianism in French mental medicine 1840-90: psychiatric theory as ideological
adaptation’, in Bynum, Porter and Shepherd (eds), *Anatomy of Madness*, I, pp. 188-232; also Rafael
Huertas, ‘Madness and Degeneration, I. From ‘fallen angel’ to mentally ill’, ed. C.M. Winston, in
German E. Berrios and Roy S. Porter, *History of Psychiatry*, iii (Alpha Academic, and Royal College of
Psychiatrists, 1992), pp. 391-411.
In Morel's blending of mental pathology and evolutionary psychology, the origin of morbid mental states could be explained as the development of adaptive pathologies that were then fixed in the organism. In this format, the first generation concealed the pathological adaptation as a predisposition or tendency, while later generations experienced it as an incapacitating physical condition of an increasingly morbid type.\(^\text{22}\)

All of Lombroso's subsequent work came to be characterized by the same underlying ideology. Lombroso's scheme relied on the assumption that there were identifiable physical characteristics or stigmata of particular groups of social deviants, which could then be sorted by the psychiatric cognoscenti into types: the criminal, the prostitute, the anarchist, and the insane genius.\(^\text{23}\)

In the British context, elements of degeneration thinking pervaded Victorian and Edwardian social debate, including attitudes to crime, but it proves difficult to identify precise moments of a theorisation of degeneration within Britain as it developed alongside and within ideas of Darwinian evolution. Nevertheless, bio-medical accounts of degeneration were emerging in the 1850s and 1860s, in such texts as *The Lancet* and the *JMS*. But despite the medical attention given to degeneration concerns, relatively little popular attention was focused on the issue of crime and social pathology,\(^\text{24}\) with even less attention given to Lombroso's efforts in the field. The rise of Lombroso, as a physicalist and hereditarian thinker, may have been a contributory factor in weakening, rather than galvanising, interest in criminology in England by associating the field with what could be interpreted as the latest form of continental intellectual extremism.\(^\text{25}\)

Both Lombroso and Italian psychiatry in general were heavily influenced by the positivist philosophy as developed by Auguste Comte (1798-1857),\(^\text{26}\) which recognised only positive facts and observable phenomena, eschewing the search for essential causes (investigations which, Comte suggested, belonged to the theological and metaphysical stages of thought).\(^\text{27}\)

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\(^{\text{26}}\) Pick, *Faces*, p. 120.

\(^{\text{27}}\) On Comte's positivist philosophy, see Mary Pickering, *Auguste Comte: An Intellectual Biography* (Cambridge, 1993) vol. 1 (of 1 so far), especially pp. 561-574. Older and less accurate studies of Comte's place in British intellectual life are Noel Gilroy Annan, *The Curious Strength of Positivism in English*
Lombroso's published research on the nature of the man of genius first appeared in 1864, in his *Genio e follia*, a small book based largely on his reading of certain literary works and amassing a quantity of anecdotal biographical material. His principal inspiration for this was the work of the pioneering hereditarian Jean-Jacques Moreau (de Tours) (1804-1884), whose *La psychologie morbide*, published in 1859, was one of the most influential texts to appear in French psychiatry on the issue of madness and genius.\(^{28}\) In it, Moreau proposed the theory of the *genie-névrose*, arguing that in the morbid, all abnormal manifestations developed from the same common root. On this schema, genius was synonymous with neurosis, stemming from the same root as madness. As the carrier of mental disorder, the genius was subject, in the same way as the insane and the criminal, to certain hereditary predispositions. In Moreau's view, as the product of overexcited nerve centres, particularly the brain, the genius was a mentally ill individual, who suffered an irregular exaltation of his intellectual faculties. Its artistic creations were the product of a mind governed by neurosis.\(^{29}\)

The hereditarian concerns of degeneration as expressed in Morel's *Traité des maladies mentales* (1860), and the subsequent work of the alienist at the Sainte-Anne asylum in Paris, Jacques Joseph Valentin Magnan (1835-1916) and his students, also influenced Lombroso's views. In his book, Morel firmly linked the idea of the connection of insanity and genius to a theory of degeneration, suggesting for the first time that degeneration could be the common origin from which, as Moreau had argued, madness and genius arose.\(^ {30}\) Magnan and his students subsequently developed and revised this theory of the degenerative and hereditary nature of insanity, as part of the wider project

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in psychiatry to define various types of mental illness. Coining the term ‘superior degenerate’, a term that rapidly gained currency, to describe the privileged class of hereditary insanity that he identified, Magnan argued that the superior degenerate was distinguished from other classes of degenerate by certain psychic characteristics. Combining the idea of genius with degeneration theory, exponents of French psychiatry thus labelled those who were insane yet in possession of a creative talent, as mentally ill.

As Lombroso’s views developed, so he began to incorporate more elements of different ideologies into his work. Six further editions of Lombroso’s book appeared subsequently over the space of thirty years. He revised and expanded his ideas in both the fourth edition of 1882, and re-titled and heavily revised again to publish the fifth version, L’uomo di genio, in 1888, before publishing a sixth edition in 1894. The fifth edition was translated into French in 1889, English in 1891 and German in 1894.

There was a crucial difference between the fourth and fifth editions. Lombroso changed and added whole new chapters to his theory between these two editions, so much so that in the preface to the fifth edition he felt compelled to write in his opening paragraph that,

‘Never has it happened that in the latest edition of a book I have had to disown nearly the whole of the earlier editions; my first idea, so imperfect and improvised, must be modified and transformed, ... the final form, perhaps, still not completely attained.’

In the fifth edition, L’uomo di genio, Lombroso absorbed French degnerationist ideas, radically altering his underlying philosophy that had previously treated the relation between genius and insanity in purely atavistic terms. Claiming to have been reluctant, initially, to adopt this degenerationist position, Lombroso commented in the preface to

34 MacGregor, Discovery of the Art of the Insane, pp. 91-102: p. 94.
the fifth edition that 'the exaggerations that were given to the theory of degeneration, and still more its vague and imprecise character had repelled me'. Despite these misgivings, Lombroso insisted that since the theory had become better established, 'and agrees so entirely with my studies on genius ... it is impossible for me not to accept it, and not to see in it an indirect confirmation of my own ideas.'\(^\text{36}\) Adding to his existing discussions on the meteorological, climatic and hereditarian influences on insanity and genius, Lombroso proposed that the explanation of the genesis of genius lay in degenerationist doctrine, and suggested that genius was a special morbid condition. To Lombroso, degeneration was visible in the action 'of heredity in the children of the inebriate, the syphilitic, the insane, the deaf, the consumptive, etc.,' alternatively it was precipitated by

'blows from other accidental causes, equally serious as these, such as the action of mercury, trauma to the head, which profoundly alter the tissues, perpetuate neuroses or other diseases in the patient, and, which is worse, aggravate them in his descendants, until the march of degeneration, always growing quicker and more fatal, is only stopped by complete idiocy or sterility.'\(^\text{37}\)

In applying the theory to genius, Lombroso argued that atavistic retrogression did not necessarily mean true degradation, simply that they were often a compensation for considerable development and progress in other directions. Thus,

'Just as giants pay a ransom for their stature in sterility and relative intellectual and muscular weakness, so the giants of genius pay a ransom for their intellectual power in terms of degeneration and insanity; and it is thus that the signs of degeneration are found more frequently in men of genius than even in the insane.'\(^\text{38}\)

In re-writing his theory to incorporate a significant portion of degeneration theory, Lombroso attempted a nosological differentiation in his description of what he termed the 'epileptoid nature of genius':\(^\text{39}\) 'the creative power of genius', Lombroso suggested, 'may be a form of degenerative psychosis of a special sort or of the epileptoid type.'\(^\text{40}\)

\(^{36}\) Lombroso, L'\(u\)omo di genio, Preface, pp. [xi], xii, my translations.
\(^{37}\) Lombroso, L'\(u\)omo di genio, p. [5], my translation.
\(^{38}\) Lombroso, L'\(u\)omo di genio, p. 6, my translation.
\(^{39}\) Lombroso, L'\(u\)omo di genio, see Parte Quarta, Cap. III, 'Sulla natura epilettoide del genio', pp. 373-385, on the epileptoid nature of genius.
\(^{40}\) Lombroso, L'\(u\)omo di genio, p. 373; Lombroso's emphasis; my translation.
For Lombroso, these atavistic individuals, the epileptic and the criminal, shared physiological traits, physiognomic signs, degenerative stigmata. Among these, Lombroso cited as examples, ‘on the moral side’, such characteristics as apathy, ‘loss of moral sense, frequent tendencies to impulsiveness or doubt’, exaggerated mutism, or verbosity, ‘morbid vanity’, ‘excessive originality, and excessive preoccupation with the self’, as well as ‘the propensity to mystical interpretation of the simplest facts, the abuse of symbolism, and of special words which become an almost exclusive mode of expression’. Besides these, there were also physical stigmata by which the degenerate might be recognised. Lombroso’s list included such traits as handle-shaped ears, deficiency of beard, excessive asymmetry of the face and the head, sexual precocity, left-handedness, stammering, rickets, and excessive fecundity, ‘neutralized afterwards by abortions, or complete sterility, preceded by ever greater anomalies in the sons.’ In addition to these, he assessed other characteristics such as height, the presence or absence of emaciation, precocity, vagabondage, unconsciousness and instinctiveness, somnambulism, hyperaesthesia, paraesthesia and amnesia, and a fondness for special words. Lombroso also included a further section on characteristics that he termed latent forms of neurosis and insanity in genius. Among these Lombroso listed chorea and epilepsy, melancholy, megalomania, folie du doute, alcoholism, hallucinations, moral insanity, and longevity. Accepting Moreau’s development of the ancient idea of the creative melancholic as the genie-névrose, Lombroso widened the cultural, social and biological role of the epileptic in order to capture within his sweep all variations of genius and its mental anomalies. Cerebral irritability on a degenerative foundation was now the common organic cause of nervous disorders such as epilepsy on one hand, and of original psychic and intellectual power on the other. The epileptic nature of genius, Lombroso believed, was ‘proved to us by the analogy of the epileptic seizure with the moment of inspiration; in the one case the active and violent unconsciousness manifests itself by creation, and in the other by motory agitation.’ As Lombroso characterised it, ‘In epileptoid genius therefore, the epilepsy is not an accidental phenomenon—but a

41 For Lombroso’s views on the criminal, see Cesare Lombroso, L’uomo delinquente (Milan, 1876), and Owsei Temkin, The Falling Sickness: A History of Epilepsy from the Greeks to the Beginnings of Modern Neurology (Baltimore, 1994, second edition), pp. 366-367.
42 Lombroso, L’uomo di genio, pp. [5]-6, my translation.
43 Lombroso, L’uomo di genio, pp. 5-32; quote p. 6, my translation.
44 Lombroso, L’uomo di genio, pp. 33-36.
45 See Moreau, La psychologie morbide, pp. v and 38f; and see Temkin, The Falling Sickness, pp. 366-368.
46 Lombroso, L’uomo di genio, pp. 374-375; my translation.
true *morbus totius substantiae*, [a disease of the whole substance] as it would be expressed in medical language’.

There is no detailed secondary material on the influence of Lombroso’s ideas of the insane genius on British psychiatric thinking. Only one other work has attempted an in-depth historical assessment of the reception of Lombroso’s work on this issue outside Italy. In her study, Sirotkina recounts the occasion when Lombroso sought to test his theory about the diseased nature of genius during his attendance at the twelfth Medical Congress at Moscow in August 1897. Visiting Lev Tolstoy (1828–1910), Lombroso sought confirmation of his theories in experiencing at first hand what he expected to be Tolstoy’s perceptible degenerative characteristics. As Tolstoy branched out from fiction and began to write philosophical and political tracts, the Moscow authorities had denounced him as an insane revolutionary. Expecting then to find a physical degenerate, Lombroso later admitted that his preconceptions were unfounded, encountering a writer able to display physical fitness and strength. For his part, Tolstoy ‘abhorred the ideas of Lombroso concerning genius and its fundamental assonance with madness.’

Lombroso’s influence should therefore be kept in perspective. Becker’s broad analysis portrays Lombroso as a pivotal figure in the period across the Continent, arguing that by the 1880s, with the translation of Lombroso’s work, ‘the topic of genius and madness had become a major theme of controversy in the Western world and, in particular, in France, Italy, Germany, England, and the United States.’ Lombroso’s ideas certainly exerted a powerful influence on some continental thinkers, most famously the German Hungarian Jew and Zionist, physician and author, Max Nordau (1849–1923), who, enthused by Lombroso’s work, also applied degeneration theory to ideas of genius. In his book *Entartung* (1892), a work of superficially scientific cultural criticism, which he dedicated to Lombroso, Nordau borrowed the term ‘degeneration’ from modern mental medicine to furnish biological explanations to support his diatribe against what he

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perceived to be the degenerate, effete elements of the fin-de-siècle culture, including symbolism, aesthetics and Pre-Raphaelite art. The principal targets of Nordau’s attack were intellectual and literary figures, such as Tolstoy, whom Nordau cited as a classic case of the irrecoverably ill, but he also labelled other phenomena, such as madness, suicide, alcoholism and crime, as symptoms of the exhaustion of the will, something he took to be the ‘sickness of the age’. Nordau’s book, highly controversial and very popular, was translated into English and printed, as Degeneration, in February 1895, passing through seven editions by the end of that year. Though not a member of the psychiatric community, Nordau seized on these discussions, being keen to use scientific evidence to make political points, and in the process embedded the medical language of degeneration in the everyday language of popular and political culture. Besides Nordau, Lombroso’s ideas on visible stigmata convinced one German psychiatrist, Paul Julius Möbius (1853-1907), who argued that all disorders of the sexual personality, such as sexual inversion, were stigmata of congenital degeneracy.

In England however, Lombroso’s influence was perceived by some to have been less extensive than on mainland Europe, as can be seen from the writings of the German-born, but naturalised English, writer and translator, Helen Zimmern (1846-1934). Writing in Blackwood’s Edinburgh Magazine in 1891, she opined that although ‘the influence of Lombroso’s books in Italy, France, and Germany has been as immediate and decisive as that of ‘The Origin of Species”, the same was not the case of England: ‘It is not to our honour that in England as yet he is so little known.’ This apparent lack of interest in Lombroso’s work becomes apparent in view of the fact that none of

51 Max Nordau, Entartung (Germany, 1892; English translation, Degeneration, 1895); also on the significant role played by Nordau within the degeneration debates, see Pick, Faces, pp. 23-27, and Greenslade, Degeneration, Culture and the Novel, pp. 120-133.
52 Sirotkina, Diagnosing Literary Genius, p. 79; see Max Nordau on ‘Tolstoism’ in his Degeneration, translated from the second edition of the German work (1895), introduction by George L. Mosse, (Lincoln, Nebraska, 1993), pp. 144-171.
56 See Francis Schiller, A Möbius Strip: Fin-de-Siècle Neuropsychiatry and Paul Möbius (Berkeley, 1982), especially pp. 75-83.
the academic libraries in England, nor the national libraries of Scotland, Wales or even the British Library, owns a copy of the original Italian book, *Genio e follia* ['Genius and Madness'], that Lombroso published in 1864. While numerous libraries hold copies of Lombroso’s criminal anthropological works, specifically *L'uomo delinquente* (1876) and *La donna delinquente* (1893), the earliest edition kept in England of *Genio e follia* (which became *L'uomo di genio* ['The Man of Genius'] in the fifth edition), is the fourth edition, published in 1882, and held at the University of London Library and the British Library. The only public academic library in the country to hold the fifth edition in the Italian, published in 1888, is the British Library. It is striking that Lombroso was so little noticed until Zimmern’s article of 1891 on his theory of political crime, and until an English translation was published in the same year. Present historiography has focussed on the reception of Lombroso’s work on criminal anthropology; reviews of Lombroso’s work in this field appeared in the *JMS* from the late 1880s and throughout the 1890s. The British reception of Lombroso’s views on the mad genius, however, remains ripe for historical analysis.

**Reassessing the British Contribution**

The British contribution to the theory of the congenital link between pathology and genius was very slight. The principal British exponent of Lombrosian ideas in Britain was Havelock Ellis, who edited and translated Lombroso’s *L'uomo di genio*, the fifth edition of Lombroso’s work on genius, for publication in his *Contemporary Science Series*. Ellis also contributed reviews of literature, much of it by Lombroso and his Italian school, on criminal anthropology for the *JMS*. But the evidence suggests that Ellis’s significance in medical history merits careful reassessment.

Havelock Ellis is famous as one of the first English sexologists. He trained in medicine, but never achieved full professional qualifications, passing only as a Licentiate of the Society of Apothecaries in 1889, despite repeated attempts to gain entry to the higher echelons of the medical profession.  

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no barrier to his being accepted as a legitimate member of the scientific community. In terms of his sexological work, Havelock Ellis was an important figure in the intellectual and cultural life of fin de siècle and Edwardian England. Yet in relation to the mainstream psychiatric community in late-nineteenth-century Britain, Ellis and the kinds of matters he was investigating were on the periphery of psychiatric interest. Despite this, his many contributions to the JMS suggest that he was held in some esteem as a scientific writer by a section of the medical profession. A JMS review of his Man and Woman, which aimed to examine human secondary sexual characters, indicates how well received Ellis’s work often was: ‘Mr. Ellis is to be congratulated on the difficult task which he has successfully accomplished in this book’. 

Ellis was also a very active populariser of science, perhaps his most successful venture being the twenty-five years he spent editing and translating works for his Contemporary Science Series. Begun in 1889 and continued until 1915, Ellis was given a free rein by his publisher to publish what he chose. Selecting a wide range of texts, Ellis aimed to present them in a comprehensible and affordable form to the general public. In producing the series, Ellis took on the task of editing and, in the case of foreign texts, translation: it involved much work, ‘for scientific men are often poor writers and incompetent proof-readers, … In one form or another I had to go through each volume several times, I usually made the index, and several of the foreign volumes I wholly or in part translated.’ On other occasions Ellis himself wrote books for his Science Series if no standard work was available in English, and if he could find no English contributor whom he could commission directly. Thus, having been interested in Lombroso’s criminal anthropological ideas for some time, Ellis compiled The Criminal, which he contributed to his Contemporary Science Series in 1890, in an effort to popularise the field, observing that, ‘criminal anthropology as an exact science is yet unknown in England.’ He based the book on his reading within the field, principally his study of the fourth edition of Lombroso’s L'uomo delinquente (1889), rather than on

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61 Ellis, My Life, pp. 169-171; quote p. 171.
any primary research of his own. Therefore this 'born pioneer' used Lombroso's works as a springboard, exposing new routes of potential investigation by disseminating Lombroso's ideas on the science of psychiatry in an affordable form for an educated public.

But an essential fact that all of Ellis's biographers have failed to note lies in the translation of the *Uomo di genio* that Ellis undertook: Ellis's translation of that text appeared as the sixteenth volume of Ellis's *Contemporary Science Series*, and was entitled *The Man of Genius*. Published in 1891, this was the only English translation of the work. Since Ellis presented the contributions to the *Contemporary Science Series* as straightforward translations, the original Italian of the fifth edition of 1888 and Ellis's translation of that edition for his *Contemporary Science Series* in 1891 should be virtually identical in content and layout. Yet careful comparison of the English with the Italian reveals that, during the course of translation, Ellis significantly altered passages, often adding many of his own examples (usually famous, as well as obscure) Britons or foreigners who were likely to have been familiar names to a British audience. For instance, the category to which Ellis added the most extra examples was to one entitled 'longevity'. Lombroso cited six examples of the 134 men of genius he claimed to know of who had lived to old age. As if to drive home the point however, Ellis cited a further 82 examples. In some cases, Ellis even made separate points supplying a swathe of his own examples, passing them off as Lombroso's own, without adding any footnotes to indicate that they were added at his own discretion. (See Appendix, pp. 243-246).

Adding British examples to Lombroso's categories, Ellis attempted to identify the stigmata or the somatic nature of genius. It is the biography genre that forms the principal component of the historiography on Ellis, but this approach of Ellis's to the task of translation, making additions where he judged it expedient, has been overlooked by all of Ellis's principal biographers. None has picked up on the fact that Ellis did not

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64 Crozier, 'Writing a text about sex', p. 85.
provide as Isaac Goldberg insisted, a 'full unexpurgated treatment of the sources', in his Science Series. Nowhere in the book itself does Ellis claim to having been even the translator. Yet this evidence demonstrates that Ellis was more than a translator, he was a self-appointed interpreter of the work for an English audience.

Ellis added fifty-nine British examples to different categories, attempting to identify the somatic nature of genius. The categories he added to included: height, (citing examples of both short and tall stature), sufferers from rickets, emaciation, those who had been weak and sickly in childhood, stammering, left-handedness, sterility, celibates, precocity. Sterility was a category Ellis padded out particularly heavily. Adding a paragraph to Lombroso’s original text, Ellis raided British history for examples to support the claim he quoted from Croker’s edition of Boswell that ‘all the great English poets had no posterity’, i.e. no heirs. Ellis then cited Shakespeare, Ben Jonson, Milton, Otway, Dryden, Rowe, Addison, Pope, Swift, Gay, Johnson, Goldsmith and Cowper. Besides these, Ellis also added to misoneism, vagabondage, double personality, hyperaesthesia, paraesthesia, amnesia, originality, and fondness for special words. Ellis also included extra examples in all of Lombroso’s categories of stigmata of neurosis and insanity in genius, including chorea and epilepsy, melancholy, (under which Lombroso and Ellis both included lists of suicides and hypochondriacs), megalomania, folie du doute, alcoholism, hallucinations, and moral insanity. During discussion of this last category, Ellis added almost three whole pages, partly in order to explain and promote Lombroso’s criminal anthropological work. Besides adding to Lombroso’s existing categories, Ellis also included a number of new indicators that do not feature in Lombroso’s original Italian text. Among them were sections on hydrocephalus, those who ‘have not been happy in marriage’, those who exhibited delayed development (which followed on from the section on precocity), and a section on stupidity.

68 Goldberg, Havelock Ellis, p. 119.
69 Yet Ellis does admit it later in his autobiography: see Ellis, My Life, p. 171.
70 Compare Lombroso, Man of Genius, ed. Ellis, pp. 6-16, with Lombroso, L’uomo di genio, pp. 6-14.
74 Lombroso, Man of Genius, ed. Ellis, pp. 14, 16-17, 25; not in Lombroso, L’uomo di genio.
Yet, having added British examples to a range of pathological categories, when it came to Lombroso's separate chapter on the relationship between genius and insanity, Ellis added only one example, that of the British statesman Henry Brougham. This suggests that Ellis believed this category was less relevant for British examples than other physical categories. Of the eighteen detailed examples that Lombroso provided of instances of insane genius (those to which he gave a paragraph or more of description), only two of these, Swift and Newton, were British examples of the type, a page of description being devoted to each. Lombroso's descriptions were largely based on anecdotal evidence of allegedly insane things they had purportedly done or said. Evidence from Ellis's additions to these examples suggests that he was concerned to include more medical details of their mental state than Lombroso's analysis provided. Thus Ellis included in his translation information that Lombroso had not mentioned, concerning Swift's postmortem, which had displayed, Ellis stated, 'softening of the brain and extreme effusion; his skull (examined in 1855) showed great irregularities from thickening and roughening, signs of enlarged and diseased arteries, and an extremely small cerebellar region'. Lombroso was scarcely less anecdotal in his description of what he interpreted as Newton's period of insanity, confining his medical remarks to observing that in old age, Newton was 'afflicted by a real mental disease, though of a less serious nature than that of the preceding example.'

However, these British examples given by Lombroso should be viewed within the wider context of his chapter. Lombroso reserved more space for describing the insanity of continental poets and philosophers such as the French poet Charles-Pierre Baudelaire (1821-1867), to whom Lombroso devoted two pages, the Italian physician and mathematician, Girolamo Cardan (1501-1576), who warranted three pages, and the French philosopher Rousseau (four and a half pages). But most of all Lombroso singled out the German philosopher Arthur Schopenhauer (1788-1860), who at seven and a half pages received the fullest treatment, and who, according to Lombroso, presented the 'most modern type of insane genius', exhibiting 'the characteristic symptom of the various stages that lead up to insanity, the rapid passage from profound

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75 Lombroso, Man of Genius, ed. Ellis, p. 80 on Swift's postmortem, [not in Lombroso]; Lombroso, L'uomo di genio, quote p. 70, my translation; for Lombroso on Swift see, L'uomo di genio, pp. 69-70, and on Newton, pp. 70-71.
76 Lombroso, L'uomo di genio, on Baudelaire: pp. 60-62; on Cardan: pp. 64-67; on Rousseau: pp. 71-75.
grief to excessive joy'. For Lombroso, Schopenhauer's descent into insanity was displayed by his déli re des grandeurs, his double personality, melancholy, depression, morbid rage, and his lack of affection. Lombroso finished by using Schopenhauer's own works to condemn him, writing that Schopenhauer had written that "The genius is closer to madness than to ordinary intelligence.—The lives of men of genius show how often, like lunatics, they are in a state of continual agitation." Thus Ellis's translation of Lombroso's work suggested that, while men of genius might exhibit insanity, the type, although identifiable in a few Britons, found its most obvious expression in certain continental poets and philosophers.

The only Briton to contribute a wholly original monograph to the issue of the possible connection between insanity and genius, and who developed the interpretation of genius in purely materialist terms, was the Scottish journalist, and dramatic critic of The Times from 1882, John Ferguson Nisbet. Working in London during the 1890s, his The Insanity of Genius was published in the March of the same year in which Ellis's translation of Lombroso appeared. It is highly significant that this was the only original monograph written by a Briton expressly on this issue. It is also significant that this was written as a popular work. No psychiatrist contributed a monograph on the question of the perceived relationship between genius and pathology; historical knowledge of the prevailing views of mainstream British psychiatry stems from the few reviews and articles that featured in the psychiatric journals of the period.

Nisbet was engaged in a popularising effort similar to that undertaken by Ellis. Yet as a journalist, Nisbet approached the work from a scientifically untrained perspective. His statements in The Insanity of Genius are clearer when viewed in the light of his other foray into the scientific field, his Marriage and Heredity: A View of Psychological Evolution, published two years earlier in 1889. In this eugenical work, Nisbet set out his beliefs that monogamy supported by Christian doctrine was the best way for humanity. He recommended that society should choose marriage matches carefully,

77 Lombroso, L'uomo di genio, pp. 82-90, quotes pp. 82, 85, 90; my translations of Lombroso.
78 Nisbet does not feature in the Dictionary of National Biography, a fact that suggests further how peripheral or relatively unimportant he was considered to be. Scant biographical details are available in Who Was Who: A Companion to "Who's Who" Containing the Biographies of those who Died during the Period 1897-1915 (London, 1920; 1935), p. 527.
with an eye on promoting moral heredity, thus encouraging the avoidance of producing families of dubious heredity.\textsuperscript{80} Nisbet's book reveals him to have been a progressivist who was influenced by the new degeneracy psychiatry from the continent, which he received principally through his reading of the pessimistic determinism of Maudsley in his \textit{Pathology of Mind} (1879).\textsuperscript{81}

Among psychiatrists in Britain, there was no one as pessimistic in outlook, or one who embraced the Morelian theory of degeneracy as much, as the alienist Henry Maudsley (1835-1918). Maudsley was a key figure in the generation following Bucknill, becoming the dominant medico-psychological specialist of the last third of the nineteenth century.\textsuperscript{82} Although there is scant biographical material concerning him,\textsuperscript{83} Maudsley developed a profoundly pessimistic philosophical psychiatry, and his Lamarckian evolutionism, his materialism, determinism and positivism were more blatant than those of many of his other alienist colleagues. Yet it was in all these respects that his influence was stamped on late Victorian medico-psychological theorising. From the 1880s, Maudsley argued that pressures towards degeneration might triumph over healthier impulses. Holding neo-Lamarckian sympathies, and insisting on the centrality of the somatic, Maudsley repeatedly emphasised the intergenerational transfer of acquired morbid characteristics as the explanation behind insanity as well as other forms of social pathology. According to Maudsley, madness was the penalty payable for vice and immorality. But Maudsley was almost perpetually at odds with the mainstream of his own profession, an isolation that enhanced the pessimism and cynicism on the hopelessness of insanity and the degeneracy of the mad and criminal classes that he expressed in his published work.\textsuperscript{84}

\textsuperscript{80} Nisbet, \textit{Marriage and Heredity}, p. 218.
\textsuperscript{81} Henry Maudsley, \textit{The Pathology of Mind, being the third edition of the second part of the "Physiology and Pathology of Mind" recast, enlarged and rewritten} (London, 1879); first published as \textit{The Physiology and Pathology of the Mind} (London, 1867).
\textsuperscript{84} Scull, MacKenzie, and Hervey, \textit{Masters of Bedlam}, pp. 235-236, 253, 266; also on Maudsley see Henry R. Rollin, 'Whatever happened to Henry Maudsley?' in Berrios and Freeman (eds), \textit{150 Years}, pp. 351-358.
For Nisbet, as for Maudsley, heredity was deterministic with no prospect of alleviation by remedial action, a fact that highlighted the importance to Nisbet of contracting eugenically healthy marriages in order to avoid degeneration. Rebell ing against the idea of predictable hereditary determinism, as had been suggested by Galton's work on the hereditability of mental power, Nisbet rejected the idea that heredity manifested itself in the 'regular mathematical order which Galton's tables of eminent men would lead one to suppose.' Rather, Nisbet drew on ideas Maudsley had outlined in a series of Gulstonian lectures he delivered at the Royal College of Physicians. In them Maudsley emphasised his belief that, 'Multitudes of human beings come into the world weighted with a destiny against which they have neither the will nor the power to contend; they are the step-children of nature, and groan under the worst of all tyrannies—the tyranny of a bad organization.' Maudsley argued that 'As physicians, we cannot afford to lose sight of the physical aspects of mental states, if we would truly comprehend the nature of mental disease, and learn to treat it with success.' In his opinion, the physician should deal with the mind as a force in nature rather than as an abstract entity, and 'must recognize how entirely the integrity of the mental functions depends on the integrity of the bodily organization—must acknowledge the essential unity of body and mind.'

Indicating his reliance on Maudsley's pessimistic interpretation, Nisbet asserted that 'The first, and perhaps the greatest lesson of heredity is that the individual man is much less the arbiter of his own destinies than his pride would have him believe. Born to a heritage of physical and mental capacity, of instincts and sentiments that he has the power to alter only in a limited degree, he may be said to be the creature of circumstances, the sport of fate.' Employing August Weismann's (1834-1914) theory of the germ plasm, where biological inheritance was directly transmitted unchanged by environmental conditions in diminishing quantities from one generation to the next, Nisbet argued that 'the species is protected against all accidental variation.' He believed that genius was one of several very specific expressions of the neuropathic condition. Relying on Maudsley, Nisbet iterated the connection between families with a strong disposition to insanity, whose members might variously display different forms

86 Henry Maudsley, *Body and Mind: An Inquiry into their Connection and Mutual Influence, Specially in Reference to Mental Disorders* (London, 1870), quotes pp. 43, 108, 109; see also pp. 75-76.
of nervous disease, epilepsy, neuralgia, hysteria, and another perhaps 'remarkable artistic talent.' Thus the faults of Byron

'were not his own, but those of his family stock. His proud, strange, impetuous, impracticable nature was a heritage. ... Fortunately the poet had no brothers or sisters; they would probably have been doomed to insanity, crime, or early death—to all the evils, in short, which, together with genius, are the recognised outcome of the neuropathic condition.'

For Nisbet health consisted in balance, but balance was the antithesis of genius. In a chapter devoted to the question of the procreation of genius, he argued that 'Dryden's saying that “great wits are sure to madness near allied” expresses a sober scientific fact, pathology proving conclusively that what we call genius is an unwholesome or at least an unbalanced condition of mind.' It is here that Nisbet's work reveals another divergence in attitudes within Britain over the nineteenth century. Nisbet's version of genius, unstable and inspired, was not similar to the version of hard working, patient, persevering genius that Darwin had borrowed from Mill and Buffon in his *Descent of Man*. Instead of conflating genius and hard work, Nisbet separated the two, indicating two different means by which works of excellence were achieved: Nisbet argued that 'Many men achieve distinction by dint of sound judgment, hard-headedness, self-confidence, and perseverance. These are hardly to be reckoned geniuses'. Nisbet's own definition of 'genius' was more in line with the Romantic version of the inspired individual: 'The word is more fitly applied to men of that intensely susceptible artistic temperament which in art or poetry works by “inspiration” rather than by reason.' Characterising 'genius' thus, Nisbet appealed to pathologies that were believed to result from unbalance. Contrasting genius with talent, Nisbet insisted that,

'the inspired poet or painter is essentially narrow in point of general capacity; the whole force of his nature is exerted in one direction. His genius is the result of a disproportionate development of some particular faculty; in other words, it means a disturbance of his mental equilibrium, and therefore belongs to the order of neuropathic phenomena.'

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89 Quoted from Maudsley, no reference given, in Nisbet, *Marriage and Heredity*, p. 149.
91 Nisbet, *Marriage and Heredity*, pp. 149, 150, 151.
In Nisbet’s view, this point had eugenical implications, insisting that the attempt to breed geniuses would simply result in degeneracy. Believing that ‘nature is progressive’, and that trying to promote the reproduction of genius, as an unstable mental condition, was a retrograde step and not to be attempted, Nisbet argued,

‘The instances are few indeed in which a man of genius engenders a son of his own calibre. It is no doubt easy to cite instances of gifted families, embracing cousins and nephews, but for precisely the same reason that social castes deteriorate, it is to be feared that the crossing of one gifted family with another of the same mould would result in a species of consanguinity and in consequent degeneracy.’

Recounting the mental and physical health problems experienced by the Goethe and Hugo families, Nisbet believed that circumstantial evidence allowed him to claim that genius was accompanied by sterility and degeneracy, and as such was ‘a condition unsuitable for Nature’s purposes’.  

Nisbet’s *The Insanity of Genius* was essentially an expanded exploration of these beliefs in the fundamental connection between genius and pathology, and its non-remedial nature. In his analysis, Nisbet applied the theories concerning the localisation of the functions of the brain plus the established kinship of a group of brain and nervous disorders, to the details of biography. Expanding the category of physical and nervous disorders that he believed were concomitant with genius, Nisbet included insanity, idiocy, paralysis, epilepsy, consumption, gout, asthma, deformities, blindness, and deafness. Although he believed there was no recognised law governing the alternations across generations the form of morbid heredity, Nisbet argued that it was yet observable how the insanity of a parent ‘may be metamorphosed in the child into general ill-health, dyspepsia, liability to neuralgia or headache, or even excessive physical activity’. On the other hand, he suggested, it could ‘descend directly, so that the son becomes as mad as the father. The importance of a proper selection of partners in wedlock can hardly be overrated.’

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There were also, Nisbet believed, 'various physical or mental defects of a minor character arising from anomalies of the nervous system which it is hardly necessary to enumerate. They will occur to the intelligent reader on a moment's reflection'. Among these Nisbet included stuttering, bad teeth, excessive hairiness or baldness, albinism, writer's cramp, 'which is known to occur in people who do not write', all of which, Nisbet believed, 'are as truly nervous in their origin as congenital blindness and deafness, or physical malformations'. But he insisted that these physical complaints were caused by the metamorphosis of nerve disorders. Insanity was 'only one of the family of nerve-diseases'; Nisbet suggested that genius would be found combined, 'in most cases, with some other of the many ailments, mental and physical, which spring from the neurotic condition'.

Again building on Weismann's concept of germ plasm, Nisbet argued that each individual inherited its own unique combination of hereditary tendencies, and he concurred with the French psychiatrists in the belief that all physical and mental disorders shared a common base in nervous disease. Thus in Nisbet's construction, as in French psychiatric literature, genius and insanity were simply two sides of the same neuropathic coin:

'The difference between them is hardly a question of degree of susceptibility; it is rather a question of area. As an exciting cause in both cases, there may be an excessive or vitiated blood supply to the affected portion of the brain, or the nerve-cells and fibres of this portion may be naturally super-sensitive—it is impossible to determine which. Genius frequently merges into insanity, and insanity into genius, and both are attended by a common train of functional disorders. ... Genius, insanity, idiocy, scrofula, rickets, gout, consumption, and the other members of the neuropathic family of disorders, are so many different expressions of a common evil—an instability or want of equilibrium in the nervous system'.

Nisbet supported this with six chapters of anecdotal information spanning over one hundred and seventy pages, forming an exhaustive catalogue of examples of men of

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95 Nisbet, Insanity of Genius, quotes pp. 48 and 109; see also pp. 109-145 on the metamorphosis of nerve disorders with illustrative examples of famous Britons.
96 Nisbet, Insanity of Genius, pp. 49-52.
97 Nisbet, Insanity of Genius, pp. 56-57.
letters, musicians, artists, statesmen, philosophers and scientists who, Nisbet believed, manifested symptoms of such nerve disorder. Thus the genealogy of Charles Darwin, ‘illustrates many of the neuropathic aspects of genius, from insanity downwards’, explaining in Nisbet’s view the reason why ‘Charles Darwin, with his heavy heritage of nerve-disorder, lived an ailing life.’

Nisbet’s work, treating genius in materialist terms, also indicates a reaction in some circles against the idea of there being exceptions in nature. Drawing on the Darwinian ideas rooted in the interpretation of Adolphe Quételet in his *Sur l’homme et la développement de ses facultés* (1835; English translation, 1842), that sought to identify the statistically average man, Nisbet in the preface to the second edition of his work, argued from a Darwinian position that Nature favoured the average, portraying extreme variations such as genius as hindrances to evolution: ‘great gifts’, Nisbet suggested, ‘however desirable in themselves, are not obtained, as a rule, without some disturbance of the healthy equilibrium of the brain and nervous system.’ He continued,

‘I expressly say that the soundest man is he who most nearly approaches the average. It is upon the medium type that Nature evidently relies for the continuance of the species, not upon extremes or accidental variations. All Darwinians will admit in the abstract that divergences or variations from the main type are bad and bound to come to naught. Nevertheless, there is one variation for which some among them deem it their duty to stand up at all hazards, namely genius. I can attribute this only to prejudice—to the rooted conviction which has obtained for so many years that exceptional ability of any kind denotes the superior animal.’

In support of this claim Nisbet cited Huxley, stating that the biologist had concurred with his reading of the phenomenon by characterising genius as a ‘sport’ of nature, an abnormal variation. Nisbet felt thus justified to contend that, ‘On Professor Huxley’s showing it is inevitable that all departures from the mean, in the human species, including those which constitute genius, should be unsound.’ In Nisbet’s terms therefore, Darwin, ‘with his heavy heritage of nerve-disorder’, was not himself an example of the healthy mean. Genius, in Nisbet’s view, was simply one phenomenon

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on a spectrum of symptoms indicative of underlying nerve disorder. In short, genius was 'unquestionably' morbid, a condition 'entailing as it does the same instability of the nervous system and being attended by the same train of functional disorders as positive insanity.'

Yet this instability was the seat of progress. In Nisbet's view, investigations into the physical basis of genius appeared to disclose that,

'human progress through the practice of the arts and sciences is mainly due to the molecular instability of the nervous system above referred to, operating not only without aid from sexual selection or natural selection, but in direct opposition to those principles.'

In proffering a purely somatic explanation of the action and origin of genius, Nisbet denied the involvement of any mystical or divine element. Genius was, in a materialist way, rationalised as a neurological phenomenon. Thus Nisbet characterised the 'mysterious gift of inspiration, essential to all literary and artistic genius', as 'evidently nothing but the automatic activity of the nerve-cells of the brain—a phase of that morbid condition which finds its highest expression in insanity.'

Reassessing the British Psychiatric Reception of Mad Genius

However, Ellis's efforts to render Lombroso's work relevant to an English audience, and Nisbet's exploration of the same ideas, had little impact on mainstream British psychiatry. While clearly popular enough to warrant the publication of a second edition of the English version in 1905, Lombroso's ideas, via Ellis's translation, received little coverage in British psychiatric literature, revealing how peripheral these views were. Other issues that fell within the psychiatrist's professional jurisdiction dominated the pages of professional journals such as the JMS, concerns such as alcoholism, epilepsy and neurasthenia. A survey of psychiatric literature of this period, particularly thereviews of Ellis's and Nisbet's work, reveals a variety of problems that psychiatrists experienced with the idea of the pathology of genius.

101 Nisbet, Insanity of Genius, p. 264.
102 Nisbet, Insanity of Genius, quotes pp. 329, 263.
Regeneration vs. Degeneration and Secular Determinism

Striking at the heart of the issue, one problem revealed in the British psychiatric literature was that of the fundamental disagreement between the intellectual environment of British psychiatrists and the philosophies that underpinned the Lombrosian project. While there was some sympathy within British psychiatry for a degenerationist interpretation, theories of degeneration were not homogeneous across Europe. Broadly speaking, degeneration can be identified as a European reaction to industrialisation, urbanisation, and the democratisation of political life, but there were also specific and unique national developments in certain countries. Michael Neve has pointed out the difficulties involved in tracing degeneration as an historically consistent theme, yet elusive within British culture as it was, the term and the theory were put to the service of a variety of medical and political uses in Britain. From the 1880s, concepts of degeneration appeared to offer rational accounts of the realities in British life about which there was widespread public anxiety. Increasingly, degenerationists put science to the task of combating the threat posed by the degenerate. 103

Yet not all British psychiatrists shared the abject pessimism of the determinist degeneration theory that Lombroso advocated. For some psychiatrists there appeared a very real danger of the term ‘degeneration’ being used as a catch-all term to indicate a bleak prognosis. As Daniel Hack Tuke wrote in the conclusion to the brief entry he penned on degeneration in his edited volume, the Dictionary of Psychological Medicine in 1892:

‘There seems to be a danger of employing the term degeneration in so comprehensive a sense as to comprise forms of mental disorder under one head which differ widely in their form, their prognosis and their treatment. Again, the term must not be allowed to convey the impression that the condition of the

patient is necessarily downwards, for this is by no means the case, recovery frequently taking place in some divisions of the group.\(^{104}\)

That British psychiatrists did not accept all elements of French degeneration theory, is suggested by the fact that, save the sketchy translation by the English alienist Forbes Winslow (1810-1874), no full and accurate translation of Morel's 1857 work appeared in Britain. Elements of continental degeneration theory were admitted into the explanations developed in Britain to account for psychiatric and sexological abnormalities, as well as criminality, but only in a diluted form.\(^{105}\) Where continental psychiatrists provided degenerationist interpretations of subjects such as alcoholism, in Britain the degeneration model was frequently seen as inadequate, with men such as the English statistician Karl Pearson (1857-1936) finding no link between parental alcoholism and mental deficiency.\(^{106}\)

That there was a lack of interest in Britain concerning degeneration may be attributed to the point that a range of writings in Britain suggested that there was no notion that a nationalism was at stake and needed to be protected.\(^{107}\) Instead, historians have identified a growing preoccupation with a sense of national identity, a sense of 'Englishness', which Robert Colls and Philip Dodd have recognised as key to the stabilisation of British life during the late nineteenth century.\(^{108}\) This Englishness was not simply an ideology, but became embodied in the 'cultural tradition'. A masculine and muscular construction of national character, 'Englishness' sought to smooth differences into one identity, making individuals responsible members of their own groups as well as participants active in the life of the community.\(^{109}\) But it also looked


\(^{108}\) See the classic accounts of this idea of the stabilising effects of national identity in Philip Dodd, 'Englishness and the national culture', and Robert Colls, 'Englishness and the political culture', both in Robert Colls and Philip Dodd (eds), Englishness: Politics and Culture 1880-1920 (London, 1986), pp. 1-28, and pp. 29-61 respectively.

\(^{109}\) Christopher Lawrence and Anna-K. Mayer, 'Regenerating England: an introduction', in Christopher Lawrence and Anna-K. Mayer (eds), Regenerating England: Science, Medicine and Culture in Inter-War Britain (Amsterdam, 2000), pp. 1-23; pp. 7 and 8; my thanks to Prof Chris Lawrence for discussions on Englishness and the place of the genius within that.
wider: Britain was an imperial nation, determined to absorb racial differences by superimposing a Christian form of civilisation onto races it judged to be primitive.

Within Italy however, nationhood was developed in different terms, as an explicit way of identifying which individuals were to be excluded from civil society. Lombroso’s proposal of the notion of stigmata of different ‘types’ of individuals developed partly, as Daniel Pick suggests in the case of Lombroso’s criminal anthropology, from Lombroso’s deterministic and materialist belief that there were identifiable threats from particular individuals in the volatile political climate of Italy in the nineteenth century. After the Italian unification in 1861, precipitated by the Risorgimento movement, the principal problem in maintaining national unity stemmed from the fact that the idea of nationhood had taken hold only in narrow social boundaries, an educated minority. Although in central and northern Italy the sense of national identity was far stronger than in Naples and Sicily, the national question persisted within Italy because of the unease generated by the incompleteness of the transformation to a united nationhood, and the failure to create a strong national identity. By identifying types such as the criminal, Lombroso’s work highlighted the small number of individuals who would never be able to assist in forming a civil society. Attempting to establish a closer definition of the legitimate political subject, Lombroso fixed more firmly the definitions of those who fell outside the civilised bounds of society and polity, and who would never gain admittance due to their degenerate heredity and atavistic nature. Lombroso thus put a physical form to the perceived threats to Italian national unity: typing the criminal, the anarchist and other subversive influences such as the prostitute, meant describing a specific physical form that made the identification of internal threats in Italy more straightforward.

However, reacting against the pessimism of degeneration theory, many British psychiatrists built theories based on a different ideology: the idea of regeneration. Without the same political and cultural concerns in Britain as existed in Italy, British psychiatric interest centred instead on the prospect of regeneration, seen in discussions

110 Pick, Faces, pp. 119-120.
112 Pick, Faces, pp. 119-120.
over approaches that should be adopted to tackle alcoholism, and pollution of the body from the environment. It was visible too in the rise of the eugenics movement, to combat problems of physically and mentally diseased heredity through judicious marriages between healthy individuals, and sexual carefulness.\textsuperscript{113} An example of the difference between the Lombrosian degenerationist approach and that of mainstream British psychiatrists can be seen in treatments of the Scottish historian Thomas Carlyle (1795-1881). In his translation of Lombroso, Ellis, in an effort to bring criminal anthropology to the attention of a British audience, associated the genius with the degenerate criminal characteristics even more explicitly than Lombroso had done in his \textit{L'uomo di genio}. Drawing on Lombroso's \textit{L'uomo delinquente}, in which Lombroso had described acts of degenerate 'criminal genius', Ellis, in his translation of \textit{L'uomo di genio}, included a number of British examples, among whom he listed Carlyle, for the way in which he had 'compelled' his wife 'to be his servant'.\textsuperscript{114} Although not footnoted, Ellis had gleaned this interpretation from the notoriously frank biography by the essayist and historian, and quondam intimate of Carlyle, James Anthony Froude,\textsuperscript{115} that had appeared between 1882 and 1884, shortly after Carlyle's death in 1881. Putting, Froude's interpretation to the service of Lombroso's theory, Ellis related how Carlyle, after the death of his wife, 'in a literary form, he showed his repentance, and narrated her history in affecting language, but, as his biographer adds, if she had been still alive he would have tormented her afresh.'\textsuperscript{116}

The case of Carlyle illuminates an important point about the wider British reaction to the idea of a criminalized genius, suggesting that sympathies for widespread secularisation were not as prevalent in British science as they appeared to have been on the continent.\textsuperscript{117} Reacting against degenerationist pessimism, certain British psychiatrists proposed alternative readings. For the Scottish psychiatrist James Crichton-Browne, for instance, Carlyle was the epitome of all that was great about

\textsuperscript{113} See Daniel Kevles, \textit{In the Name of Eugenics: Genetics and the Uses of Human Heredity} (Cambridge MA, 1995).

\textsuperscript{114} Lombroso, \textit{Man of Genius}, ed. Ellis, pp. 59-63, quotes pp. 59, 61; not in Lombroso.


\textsuperscript{116} Lombroso, \textit{Man of Genius}, ed. Ellis, p. 62; not in Lombroso.

\textsuperscript{117} Owen Chadwick has argued the broader point, suggesting that British scientists were not as secular or as anticlerical in outlook as their French and Germany counterparts in the late nineteenth century: see Owen Chadwick, \textit{The Secularization of the European Mind in the Nineteenth Century: The Gifford Lectures in the University of Edinburgh 1973-4} (Cambridge, 1975), pp. 186-187.
Scotland. Writing on Carlyle’s character in *The Nemesis of Froude* in 1903, Crichton-Browne and Alexander Carlyle proposed that, 'Intellectually fulfilling one’s ideal of greatness, ... Carlyle will yet be recognised, ... as morally as well as intellectually great. He was, verily, one of the kindliest, most generous, true-hearted, humans, and upright of men'. Believing that mankind could experience epiphanies, 'mysterious surges of cerebral health and insight', and Crichton-Browne asserted that recovery was possible with the brain reviving. Crichton-Browne’s treatment of Carlyle was part of the reaction within British psychiatry to the outright secular pessimism that accompanied the kind of typology that Ellis and Lombroso described, and which Maudsley endorsed. Against Froude’s portrayal of Carlyle as domestically violent and sexually impotent, Crichton-Browne, a church-going Anglican who championed religion as a force against moral decline, defended his hero Carlyle by devising an ideological system where surges of power, moments of conversion from weakness into strength could effect an alteration. This inspired free will, in Crichton-Browne’s construction, could contradict determinism by transcending cerebral injury. For British psychiatrists such as Crichton-Browne therefore, the mind was capable of being regenerated.

**Materialism and Stigmata**

Just as British psychiatry was not underpinned by a belief in degeneration and hereditary determinism, nor was it sympathetic to theories derived from the other mainstay of the Lombrosian standpoint, and one that appealed to the élite of the Postrisorgimento: materialism. The rejection of the idea of the existence of stigmata indicative of genius depended to a large degree on the philosophical and religious background and beliefs of British psychiatrists. This helps to explain the little sympathy among British psychiatrists for the idea that genius, or the criminal, possessed somatic characteristics, anatomical and physiological signs, or 'stigmata', comprising a

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120 Neve and Turner, ‘What the doctor thought and did’, p. 426.
121 van Ginneken, *Crowds*, p. 56.
typology that was identifiable by the expert. In the field of criminal anthropology, Lombroso’s views on the physical expression of criminality in the body of certain individuals did not prevail in Britain, and made little impact on British social thought. Although Englished versions of Lombroso’s criminal anthropological works were published, as well as reviews, such discussions within British psychiatry demonstrated an almost complete hostility to the developments of the Italian positivist school of criminal anthropology that Lombroso had developed. Mainstream British psychiatrists did not attribute any value to a radical somatic system that tried, by anthropometric or craniometric measurements, to identify physical stigmata or atavistic throwbacks in anyone, whether criminal or genius.

After Ellis’s re-writing of Lombroso’s L’uomo delinquente as The Criminal for his Contemporary Science Series in 1890, there was a profound reluctance on the part of the British medico-psychiatric establishment to put a criminal type onto clinical criminal examples, partly because each individual criminal was deemed to be unique. Even Ellis preferred to avoid apparently obvious physical characters in favour of instinctive criminal idea, which emphasised psychical rather than physical traits. Few in Britain accepted the existence of physical signs or stigmata. Yet one notable exception was the Chaplain of Wandsworth Prison, William Douglas Morrison, who advocated studying the criminal ‘physically, mentally, and pathologically’ as part of a far-reaching examination into the elements that contributed to his criminality.

Other investigations in Britain, rejecting Lombrosian conceptions of stigmata for crime, developed a psychiatric determinist account of feeblemindedness to explain the existence of the habitual criminal. Hence criminal anthropology was little encouraged in late nineteenth-century Britain, since accepting the existence of a science of criminology would entail acknowledging the idea that there was an identifiable exterior form. Indeed, no criminology was taught formally in any British university until 1935. Denying the relevance of stigmata in identifying criminals, so mainstream British

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psychiatry also rejected the conception that there might be a specific somatic typology for the unique genius.

The notion that it was possible to see the character of an individual expressed in a physical way was thus a theory at odds with the prevailing psychiatric and mainstream scientific views in Britain, with research emerging in Britain during this period suggesting the unique nature of each individual. Most evidence for this came from Galton's work on composite photography and statistical psychological studies, which occupied most of his time between 1877 and 1885. Published as *Natural Inheritance* in 1889, Galton summarised all the anthropometric data he had gathered over the intervening years, the book becoming a foundation of modern biometrics.\(^{125}\) Anxious to avoid subjective artistic interpretation, Galton employed the technique of composite photography. The face of each member of the group he was studying was drawn on transparent paper; by exposing a photographic plate to each image, a composite image would emerge. Such a mechanised abstracting procedure would therefore eliminate the vagaries and subjectivity of individual judgment.\(^{126}\) It was clear that in Galton's view the imagination needed careful policing by the scientist himself:

'A composite portrait represents the picture that would rise before the mind's eye of a man who had the gift of pictorial imagination in an exalted degree. But the imaginative power even of the highest artists is far from precise, and is so apt to be biased by special cases that may have struck their fancies, that no two artists agree in any of their typical forms. The merit of the photographic composite is its mechanical precision, being subject to no errors beyond those incidental to all photographic productions.'\(^{127}\)

Galton had hoped that composite photography might provide a rapid means of identifying certain types of individual: if certain physical features signalled specific racial traits or behavioural tendencies and if these were inherited, then comparing the image of the individual against the composite of a type of person might afford swifter

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\(^{126}\) Lorraine Daston and Peter Galison, 'The image of objectivity', *Representations*, vol. 0, issue 40, special issue: Seeing Science (Fall 1992), 81-128: p. 103.

\(^{127}\) Francis Galton, 'Composite portraits', *Nature*, 18 (1878; 23 May 1878), 97-100: p. 97; also discussed in Daston and Galison, 'The image of objectivity', p. 103.
identification. But Galton experienced problems: the insane he photographed had features so irregular as to render the blending of their photographic images impossible; in the case of criminals, composite photography did not expose features typical of different groups of criminals. In his *Inquiries into Human Faculty and Development* of 1883, Galton admitted that the composites 'produce faces of a mean description, with no villainy written on them.'¹²⁸ Nor did Darwin, as his *Expression of the Emotions in Man and Animals* (1872) indicates, believe that examination of physiognomy from photographs Crichton-Browne sent him of the insane, was capable of proving conclusively the existence of different faces of insanity.¹²⁹

Further evidence suggesting the unique nature of mankind came with Galton’s *Finger Prints* of 1892, which claimed that there was a chance of only '1 in about sixty-four thousand million' that two sets of fingerprints would be completely alike. Galton proposed that the papillary ridges on the fingertips ‘have the unique merit of retaining all their peculiarities unchanged throughout life, and afford in consequence an incomparably surer criterion of identity than any other bodily feature.’ Applying the ‘well-known method of binomial calculation’ to fingerprint data, Galton insisted that his seventh chapter demonstrated that

‘When a close correspondence exists in respect to all the ten digits, the thoroughness of the differentiation of each man from all the rest of the human species is multiplied to an extent far beyond the capacity of human imagination. There can be no doubt that the evidential value of identity afforded by prints of two or three of the fingers, is so great as to render it superfluous to seek confirmation from other sources.’¹³⁰

Yet Galton’s work revealed that these unique forms of identification did not enable conclusions to be drawn as to what type the individual was: fingerprints were physical marks that did not mark out one class of individual from another. As Galton reported,

'Considerable collections of prints of persons belonging to different classes have been analysed, such as students in science, and students in arts; farm labourers; men of much culture; and the lowest idiots in the London district (who are all sent to Darenth Asylum), but I do not, still as a first approximation, find any decided difference between their finger prints. The ridges of artists are certainly not more delicate and close than those of men of quite another stamp.'

Over the course of the 1890s, fingerprinting gradually superseded anthropometry as the ideal method of criminal identification, and *Finger Prints* was favourably and widely reviewed within the popular press. During the 1890s, a series of Committees was charged with examining the potential of fingerprinting as a means of criminal identification, before, finally, in July 1901, the Central Fingerprint Branch was formed of Scotland Yard. Systems of identification were therefore being adopted in Britain that relied on the uniqueness of individuals. Galton’s book had shown both that fingerprints were unique, and that different groups or classes of people did not share similar characteristics in terms of fingerprint patterns.

In this light, the texts on the idea of the pathological genius appearing in the 1890s were basing their conclusions on evidence from, if not discredited, then certainly superseded theories and processes of investigation. As Lombroso’s anthropometry became increasingly obsolete in the face of the new fingerprinting technology, so too was Nisbet’s popular work outmoded. Aiming to combine physiology, the ‘latest discoveries of the brain and nervous system’, with a rehabilitation of phrenology, Nisbet argued that there was a material base of mental functions. Devoting a whole chapter to phrenology, Nisbet acknowledged its defects yet insisted on its usefulness: ‘The phrenologists, it must be owned, have been singularly rash. They have not only carried their pretensions to an absurd pitch, but they have shown an almost incredible laxity and credulity in their investigations’. Yet, he believed, ‘there is still a certain amount of evidence in favour of the theory that the shape of the head bears some relation to mental capacity. Phrenology need not be thrown over altogether.’

132 van Ginneken, *Crowds*, p. 112.
133 Gillham, *Galton*, pp. 243, 244-249.
One prominent scientist, Alfred Russel Wallace, famously advocated a return to phrenology. Writing *The Wonderful Century* in 1898, his review of the achievements and failures of the past hundred years, Wallace numbered Britain's neglect of phrenology among 'many serious failures, intellectual, social, and moral'. In Britain, phrenology had been discredited by the mid-1840s, thanks principally, as Wallace suggested, to the increase in itinerant lecturers, many of whom were ignorant of the subject, and in some cases, uneducated; its association with mesmerism, 'which at that time was still more virulently opposed'; and the objections raised to the detailed classification of the mental faculties.135 Similarly, a *JMS* review of the fifth edition (1872) of *On the Relation between Science and Religion*, by the Scottish populariser of phrenological ideas George Combe (1788-1858), remarked that: 'Like many other persons, probably, we have been prejudiced against it on account of the phrenological views which its distinguished author was known to entertain so strongly.'136 Wallace insisted that despite hostility from the scientific profession over the last half of the nineteenth century, the dawn of the twentieth century would mark phrenology attaining general acceptance:

'It will prove itself to be the true science of mind. Its practical uses in education, in self-discipline, in the reformatory treatment of criminals, and in the remedial treatment of the insane, will give it one of the highest places in the hierarchy of the sciences; and its persistent neglect and obloquy during the last sixty years, will be referred to as an example of the almost incredible narrowness and prejudice which prevailed among men of science, at the very time they were making such splendid advances in other fields of thought and discovery.'137

Yet, as indicated in the Introduction, this was not mainstream scientific orthodoxy. Indeed, by the time William Ireland was writing in the *JMS* in 1902, referring to 'the antiquated claims of phrenology',138 phrenology was clearly beneath scientific contempt. While, by 1908, Maudsley felt able to compare the 'genius-variation' to 'the

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138 William W. Ireland, Review, 'P. J. Möbius, *Ueber Kunst und Künstler* [On Art and Artists]', *JMS*, XLVIII, no. 200 (January 1902), 120-122; p. 121: 'We think that Dr. Möbius would have done more wisely had he taken what seemed good in Gall's works without attempting to revive the antiquated claims of phrenology.'
so-called organic "mutation" from which a higher type of species is supposed to spring',
the 'genius-variation' did not display visible physical signs by which it might be
recognised. 'Inevitably therefore', Maudsley asserted,
'in the man of genius is implicit something more than is consciously formulated
in outward expression, a semi-conscious or subconscious susceptibility and
intuition, silently absorbing and informing, of which he can give no explicit
account consciously.'

Epilepsy

Further reason for the hostility to, and subsequent dismissal of, Lombroso's ideas was
that British psychiatrists did not agree with Lombroso's categorisation of the genius as
being epileptoid. The idea of there being a possible link between genius and epilepsy
was not new: it had been mooted during the Renaissance that there was a relationship
between genius and epilepsy, a belief that culminated in the idea that most epileptics
were men of great intelligence, being an extension of the [Pseudo]-Aristotelian thesis
that melancholy and genius were concomitant. However, the absence of the connection
being made between genius and epilepsy within the major monographs on epilepsy of
the period indicates that the idea of epileptoid genius was a feature confined to the
degenerationist discourse, principally as inspired by Lombroso. Indeed, the only other
point at which genius and epilepsy are combined in Owsei Temkin's definitive survey
of epilepsy is in his discussion of Lombroso's ideas. Instead, by the late nineteenth
century, epilepsy was more associated with degeneration and feeblemindedness by
investigators such as the French physician and neurologist, Jean-Martin Charcot (1825-
1893). Certainly William Carpenter believed that epilepsy chiefly weakened the mental
powers, but he did not couch this in terms of being the source of genius:
'It is chiefly (but not solely) in those cases in which the Cerebral power has been
weakened by a succession of attacks of Mania, Epilepsy, or some other disorder

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140 In the following key works on epilepsy published during this period there is no association of genius
with epilepsy: William Gowers, *Epilepsy and other Chronic Convulsive Diseases: Their Causes,
Symptoms and Treatment* (London, 1901, second edition); George Beaman, *Epilepsy and its Cure*
(London, 1867); A. Hughes Bennett, *A Statistical Inquiry into the Nature and Treatment of Epilepsy*
(London, 1884); Charles Féré, *Epilepsie* (Paris, 1892). I am grateful to Dr Stephen Jacyna for his
assistance concerning the history of epilepsy.
141 Temkin, *Falling Sickness*, pp. 163, 366-368.
which consists in a perverted action of the whole organ, that we find the *intellectual* powers specially and permanently disordered; the succession of thought becoming incoherent, and the perception of those relations of ideas on which all reasoning processes depend, being more or less completely obscured.'

Suggestions of the relationship between genius and epilepsy were further scotched in British science by evidence offered by Ellis in his *Study of British Genius* of 1904. Taking his raw data from the newly-published *Dictionary of National Biography*, Ellis observed that in his data set, epilepsy was mentioned only twice by the biographers: once as an example of epilepsy in early life (Lord Herbert of Cherbury), and once as an instance of epilepsy in old age (Sir W.R. Hamilton). But Ellis proceeded to explain that, 'Even these two cases, however, cannot be admitted.' In the case of Lord Herbert of Cherbury, Ellis claimed that 'the national biographer has simply misunderstood a passage in Lord Herbert's *Autobiography*'; in the case of Sir W.R. Hamilton, Ellis stated that 'the epileptoid fits occurring in old age most certainly cannot be regarded as true epilepsy.' This led Ellis to conclude that, 'There appears to be nothing whatever in the records of British genius favourable to Lombroso's favourite theory, that genius tends to occur on an epileptoid basis.'

**Conflicting Methodologies**

One further problem that featured in the British psychiatrists' reviews was the issue of what constituted the 'proper' scientific method by which the conclusions in Lombroso's and Nisbet's works were reached. The difficulty lay in the relationship between subjective and objective data within scientific investigation. Both Lombroso's and Nisbet's books on the insanity of genius were based on anecdotal information. Nisbet's efforts to combine the scientific tradition of Lélut, Moreau de Tours and Lombroso, with anecdotal biographical details, resulted in a hybrid method that did not satisfy the objective scientific standards of British psychiatric practitioners.

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By the time Ellis wrote his autobiography in 1940, he was able to look back on the ideas of the 1890s with the benefit of hindsight, knowing which views had prevailed and which had been long since abandoned. It appears that his statement concerning his *Contemporary Science Series* that 'sometimes, of course, my judgment went astray in choosing my writers',\textsuperscript{144} may refer to his translation of Lombroso. Certainly, Ellis admitted privately that he had found methodological difficulties with Lombroso's work and recognised its scientific shortcomings. As Ellis had stated in his *JMS* article of 1890 in relation to criminal anthropology, Lombroso's work 'is by no means free from faults. His style is abrupt; he is too impetuous, arriving too rapidly at conclusions, lacking in critical faculty and in balance', believing that Lombroso had been led to press 'too strongly the epileptic affinities of crime.' Ellis echoed the judgment of the Italian physiologist and anthropologist Paolo Mantegazza (1831-1910) who, 'while recognizing his *ingegno potentemente apostolico e geniale*, [his powerful and ingenious pioneering talent] denies that Lombroso possesses any of the qualities of a scientific investigator'.\textsuperscript{145} Similarly, writing to the English critic and poet John Addington Symonds (1840-1893) in 1892, the year after Ellis had published his translation of *Man of Genius*, Ellis admitted, 'Nothing too severe can be said of Lombroso's lack of critical judgement and historical insight and accuracy; one forgives it all because he opened up so many new lines of investigations and set so many good men to work.'\textsuperscript{146} Indeed, despite being honoured at international congresses of criminal anthropology, which were held in various European capitals from 1885, as the pioneer of a scientific criminology, Lombroso came under attack from foreign delegates, principally for his inconsistent methodology and extreme biological fatalism.\textsuperscript{147}

Despite this, Ellis did feel that the strength of Lombroso's criminal anthropological work at least lay in the fact that it had been 'so rich, so laborious, so various; it has opened up so many new lines of investigation, and has suggested so many more, that it has everywhere been received as marking a new epoch.'\textsuperscript{148} Indeed, for all Ellis's apparently private reservations about the scientific legitimacy of Lombroso's work,

\textsuperscript{144} Ellis, *My Life*, p. 171.

\textsuperscript{145} Henry Havelock Ellis, 'The study of the criminal', *JMS*, XXXVI, no. 152 (January 1890), 1-15: p. 9.

\textsuperscript{146} Henry Havelock Ellis to John Addington Symonds, 1 July 1892, in Havelock Ellis Papers, Harry Ransom Center, University of Texas at Austin. My thanks to Dr Ivan Crozier for drawing my attention to this illuminating piece of evidence.

\textsuperscript{147} Pick, *Faces*, p. 120.

\textsuperscript{148} Ellis, 'The study of the criminal', p. 9.
Ellis was evidently keen to cultivate Lombroso as a contact. In spring 1894, Ellis attended the International Medical Congress in Rome, where he made some important contacts with men such as Dr Hans Kurella, who had already translated Ellis's *The Criminal* and *Man and Woman* for Wigand of Leipzig, and was later, in 1896, to publish Ellis's more famous work, *Sexual Inversion*. At this congress, Ellis, on the strength of his recent publications, was visited at his hotel by Lombroso, who appointed Ellis to the largely honorary post of secretary of the Psychiatric Section.\(^{149}\)

However, few of Ellis's fellow British scientists agreed with this partially positive interpretation of the value of the Lombrosian approach to the question. Few reviews appeared on Lombroso's own work. Indeed, the only review in the *JMS* on the fifth edition of Lombroso's work on genius, *L'uomo di genio*, was written by Ellis himself. There is little evidence of any other man of science appraising the value of Lombroso's book. Ellis's review did not appear until 1890, two years after its publication. Summarising the principal points for the psychiatric readership, Ellis remarked, 'it must certainly be said that Lombroso's book is by far the most rich, comprehensive, and fascinating collection of facts and generalizations concerning genius which has yet been brought together.' Yet for all the ideas of 'interest to all students of morbid psychology', at the same time Ellis believed that it 'does not always throw any great light on the nature of genius.' Yet, Ellis opined, the value of 'this very learned and curiously interesting book' lay in its highlighting of the fact that 'we should respect the supreme misfortune of insanity, and not be too much dazzled by the light of genius, which is often not that of a planet, but of a falling star.'\(^{150}\)

Those reviews that did appear about the proposed link between pathology and genius tended to focus on the inadequacies of the method employed to examine the question. It was the reliance on the subjective, unscientific method of enquiry based on anecdote, from biography and autobiography, that was the most frequently raised objection in reviews of work alleging the connection between insanity and genius. For instance, remarking in his assessment of the life of the Italian poet Torquato Tasso, in 1896, that,

\(^{149}\) Grosskurth, *Havelock Ellis*, pp. 179, 168.

We have had much loose writing about genius being a neurosis, or that nervous diseases and insanity are more common in the families which produce men of genius, William Ireland questioned the methodologies of such works. 'The apocryphal anecdotes quoted about celebrated men in some popular books on this subject', Ireland declared,

'are enough to throw discredit upon the whole conception. Has it ever been proved by exact comparative inquiry that a given number of men of unquestionable genius have in their ancestors, descendants, and collaterals more nervous diseases and insanity than the same number of ordinary men living under similar conditions?'

Other psychiatrists had provided more specific rebuttals of such works. Hot on the heels of the second edition of Nisbet's book came the first of the JMS reviews, in October 1891. The anonymous reviewer did not accept Nisbet's line of argument, regarding Nisbet's method in particular as rendering his work useless to the serious scientist. Citing various examples of what was perceived to be Nisbet's unusual approach to his evidence, the reviewer stated that, 'Mr. Nisbet's views on morbid psychology are of a somewhat eccentric character'. According to this reviewer, Nisbet's forte was that he had gathered together information from a huge array of biographies, logging the abnormalities of men of genius and of their relations, 'and the enormous mass of interesting facts that accumulated can be used by those who do not always accept the explanation here set forth.' But the reviewer could not resist a swipe at any scientific pretensions Nisbet may have ever entertained, declaring as a result of the bizarre examples that Nisbet used, that, 'If we overlook these peculiarities, which do much to prejudice a scientific reader against the book, we shall find much in it that is of interest to the student of genius.' The value of Nisbet's work, to this reviewer at least, was the information Nisbet had gathered, not the argument he had employed.

Similar concerns were raised in the same year, by a review in the psychological journal Mind, a periodical founded in 1886 by the Scottish philosopher and psychologist

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151 William W. Ireland, 'Torquato Tasso and his biographers' (part II), JMS, XLII, no. 179 (October 1896), 795-817: p. 816.
Alexander Bain (1818-1903). In both professional psychiatric and general scientific quarters, problems were found with Nisbet's method:

'The defect of Mr. Nisbet's attempted proof of his thesis is that he hardly goes beyond an enumeration of positive instances superficially in its favour. The necessity of a comparative study of men of genius and undistinguished persons is indeed glanced at in the last chapter, but that is all. For anything like scientific inductions, comparison should of course have been systematic and continuous.'

The reviewer believed that while the collection of evidence 'is extensive and interesting', the interpretation was flawed. He suggested that the bulk of Nisbet's examples could be more easily explained using an hereditarian interpretation: 'It is worthy of note that the only detailed case in which the author tries to show directly an "excess of faculty along with morbid conditions" ... is much more easily explicable on the "hereditary genius" than on the "insane" theory.'

Little subsequent comment was passed in the psychiatric literature until a further JMS review appeared in 1900, reviewing Nisbet's last work, The Human Machine. In it, an anonymous reviewer passed brief judgment over The Insanity of Genius, describing it as a work

'which attracted considerable attention a few years ago. Notwithstanding, however, the skill and lucidity with which it was written, and the author's wide knowledge of literary history, it was obviously not the work of a writer properly equipped for his task on the pathological side, and we were unable to regard it as a serious contribution to the difficult problem it attempted to settle.'

Reading more like an obituary than a book review (Nisbet died aged forty-seven only a few days after the publication of The Human Machine in 1899), the writer laid out Nisbet's background, and denied the recently deceased author any lasting claim on the attention of psychologists. 'Nisbet cannot be considered a psychologist', the reviewer continued,

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'at the best he was only an amateur psychologist. By profession he was a journalist, ... Though not a psychologist, Nisbet had in intellectual matters the temperament of the philosopher. He was always devoured by a passion to see things clearly, and to see them for himself. Though his vision of the world was often singularly one-sided, he was determined to be relentlessly sincere, at whatever cost to himself or others. His creed was a convinced and thorough-going materialism of a somewhat old-fashioned type, and this he was always prepared to defend.'

While admitting Nisbet's ideas were at least eye-catching and 'stimulating', the professional psychiatric reviews denied the methodological soundness of Nisbet's work. Nisbet's lack of formal qualifications and consequent lack of expertise meant the discarding of his ideas came easily to the psychiatric profession, when they could be framed as eccentric, antiquated approaches to questions about which he could possess no real knowledge.

Yet Nisbet's work clearly proved popular with the 'general' audience at which it was aimed: as Nisbet remarked in the preface to the second edition of _The Insanity of Genius_ in September 1891:

> 'From the rapid sale this book has met with, a second edition being called for within the space of a few months, and the keen controversy it has excited in many quarters, it would appear that I did not over-estimate the desirability of endeavouring anew to solve the perplexing question of genius, and to ascertain, in the light of the latest discoveries in physiology, its bearing upon the progress of the human race.'

Public interest in the issue evidently persisted, with six editions of Nisbet's work being published by 1912.

Partly due to methodological difficulties, interest in the debate in Britain was essentially the preserve of individuals on the periphery of mainstream psychiatry. Given this, Becker's use of Nisbet's book in supporting his generalised thesis of the existence of the 'mad genius controversy' is surprising. Becker claims Nisbet's position conveys

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'the general inclination characteristic of those who subscribed to the pathology verdict on genius. Most of his contemporaries who wrote on the controversy were, like him, prone to use the concept of the statistical average as the yardstick against which genius—and, concomitantly, madness—was judged. Yet the reviews in the JMS show that Nisbet was not held as representative of the prevailing opinions of British psychiatrists. Although the term 'genius' had changed in meaning within British science over the nineteenth century, acquiring further layers of meaning relating to bourgeois Victorian values of work, it nevertheless retained an element of subjectivity. Such were the problems posed to science in using the term that, by the 1890s, even British scientists who had previously employed the term were ditching it in favour of other terminology.

Genius and Ability

Highly significant at this point in the 1890s when works in English were beginning to appear on the connection between insanity and genius, and a period that should, in the Beckerian account, be the height of the 'mad genius controversy', was the appearance of the second edition of Galton's book Hereditary Genius (second edition, 1892). In the preface he wrote to accompany the new edition, Galton explained that his book had been mistitled:

'The fault in the volume that I chiefly regret is the choice of its title of Hereditary Genius, but it cannot be remedied now. There was not the slightest intention on my part to use the word genius in any technical sense, but merely as expressing an ability that was exceptionally high, and at the same time inborn.'

Judging that 'its title seems apt to mislead,' Galton observed that, 'if it could be altered now, it should appear as Hereditary Ability.' For Galton to deny the use of the word 'genius' at this point in British scientific history is significant, for it suggests that 'genius' was not recognised within the British scientific community as a useful, objective category. Instead of intending 'genius' to refer to an extraordinary human

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157 Becker, Mad Genius Controversy, p. 92.
158 'The stereotype of the mad genius reached an apex of popularity at the turn of the twentieth century (1880-1920)': Becker, Mad Genius Controversy, p. 29.
quality, Galton insisted that he had meant hereditary *ability*, an innate talent that could be trained.

Galton’s 1892 preface not only indicates the extent to which the meaning of genius had altered, the way in which it had been rationalised such that it could be conflated with other categories such as ability. Galton’s preface also represents the first direct challenge by a British writer to the notion of the connection between insanity and genius as it had been advanced by Lombroso ‘and others’, whom Galton did not name. As the *JMS* review of Galton’s book in 1893 pointed out, ‘As the book originally stood, there was no reference whatever to the abnormal psychology of genius. Any acknowledgement, indeed, of a morbid mental tendency in genius would seem alien to the spirit and argument of the book.’ While feeling that ‘I cannot go nearly so far as they, nor accept a moiety of their data, on which the connection between ability of a very high order and insanity is supposed to be established’, nevertheless Galton felt compelled to draw similar conclusions. ‘Still, there is a large residuum of evidence’, he observed,

‘which points to a painfully close relation between the two, and I must add that my own later observations have tended in the same direction, for I have been surprised at finding how often insanity or idiocy has appeared among the near relatives of exceptionally able men. Those who are over eager and extremely active in mind must often possess brains that are more excitable and peculiar than is consistent with soundness. They are likely to become crazy at times, and perhaps to break down altogether.’

Galton had thus stressed ‘ability’ over ‘genius’ because ‘ability does not exclude the effects of education, which genius does.’ Without intending to speak of genius as a ‘special quality’, Galton had intended no technical usage of the term and instead insisted that, throughout the book, ‘it is freely used as an equivalent for natural ability’. Emphasising that his work concerned the kind of natural ability that sprang from healthy bodies and minds, and not from supernatural influence, Galton’s ideas represent

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further biologisation and rationalisation of the category of ‘genius’. Rooted in Darwinian naturalist thought rather than religious thought, Galton saw the kind of genius that meant ‘inspiration’ or the action attributed to the divine, as akin to madness and thus unhealthy:

‘There is much that is indefinite in the application of the word genius. It is applied to many a youth by his contemporaries, but more rarely by biographers, who do not always agree among themselves. If genius means a sense of inspiration, or of rushes of ideas from apparently supernatural sources, or of an inordinate and burning desire to accomplish any particular end, it is perilously near to the voices heard by the insane, to their delirious tendencies, or to their monomanias. It cannot in such cases be a healthy faculty, nor can it be desirable to perpetuate it by inheritance.’

Instead, Galton emphasised that his work argued from a different premise entirely: eugenics. Galton believed that humanity possessed a moral duty to develop its natural gifts. But Gabon’s emphasis was firmly natural and secular; there was no appeal in his preface to the role of the divine, only human intervention as far as was possible in the workings of biological selection. In explicating his eugenical position, Galton stated that,

‘I wish again to emphasise the fact that the improvement of the natural gifts of future generations of the human race is largely, though indirectly, under our control. We may not be able to originate, but we can guide. The processes of evolution are in constant and spontaneous activity, some pushing towards the bad, some towards the good. Our part is to watch for opportunities to intervene by checking the former and giving free play to the latter. We must distinguish clearly between our power in this fundamental respect and that which we also possess of ameliorating education and hygiene.’

This was the main thrust of Gabon’s work over this period. The ultimate purpose of his investigations after the initial publication of his Hereditary Genius in 1869 had been to establish methods for advancing the quality of human stock, an agenda for which he had

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163 Galton, Hereditary Genius (1892), Prefatory Chapter to the Edition of 1892, pp. viii-x.
laid out in an article of 1873. In grading men statistically according to ‘natural ability’, Galton hoped that the ‘average standard of a civilised race might be raised to the average standard of the pick of them, as they now are, at the rate of one in every four.’ He suggested this might be achieved by building up ‘a sentiment of caste among those who are naturally gifted,’ and providing for them, ‘such moderate social favour and preference, no more and no less, as would seem reasonable to those who were justly informed of the precise measure of their importance to the nation.’ Intermarriage of this intellectually and socially privileged caste, would, Galton believed, gradually help to raise the average standard of the race. Yet to Maudsley, arguing in his *Heredity, Variation and Genius* (1908), the attempt to breed geniuses artificially, against the process of nature in this way, would result in degeneracy. Maudsley argued that, despite Galton’s work in the field, there was yet little that was really known of the laws of human heredity, and

‘although knowing accurately the ancestry, it is not possible so much as to foretell in a particular case whether the offspring shall be long or short, male or female, any more than whether it shall be a fool or genius. In the absence of such exact and positive knowledge prescriptive rules of human breeding must obviously be guesswork, despite Mr. Galton’s sanguine assertion that “it would be quite practicable to produce a highly gifted race of men by judicious marriage during several successive generations.”’

Yet judged from a psychiatric perspective, for the reviewer in the *JMS* in 1893, Galton’s work had thrown no real light on genius per se. ‘What he has really proved’, the reviewer observed,

‘is that natural ability, coming short of genius, may be inherited or become a family possession; he has also proved, more indirectly, that genius in the special sense of the word is never inherited; he has not furnished a single instance in which genius has passed from father to son, nor are we able to supply such a case’.

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166 Maudsley, *Heredity, Variation and Genius*, p. 54.
Thus Galton’s book, ‘valuable as it is, leaves untouched the study of the man of genius proper.’

*Overwork and Education*

Just as Galton had taken genius to mean something other than the inspired phenomenon that was popularly associated with the term, so too British psychiatrists interpreted genius in terms different from those used by Lombroso (through Ellis), and Nisbet. An important key to understanding the British psychiatric community’s reaction to the idea of the insanity of genius lies in its attitude to work and its potential detrimental effects. Rejecting an hereditary degeneracy account that judged insanity and genius to be physiologically linked, British psychiatrists argued a position that implicated overwork, overuse of genius or ability, as a cause of mental and/or physical breakdown. Thus Crichton-Browne, in his inaugural address to the Edinburgh University and the Galloway Literary Society in 1897, seeking to rebalance the skewed picture of Carlyle provided in his wife’s *Letters* and *Journal*, highlighted Carlyle’s wife’s hereditary predisposition to nervous disease, the effects of which had been exacerbated through overstrain when young. Mrs Carlyle, he wrote,

‘was brought up under hot-bed conditions; her naturally active brain being stimulated by ambition. She learnt Latin like a boy, and read Virgil at nine years of age; would sit up half the night over a mathematical problem when a girl of twelve, and wrote a tragedy when fourteen; and as the consequence of all this she grew up into a highly neurotic woman.’

All this overstrain and hard intellectual work had precipitated her nervous condition, and Crichton-Browne was confident that ‘the medical psychologist will recognise the cerebral neurasthenia which is so often accompanied by profound dejection and delusional beliefs.’ Far from being the monstrous husband, guilty of mistreatment of his wife, as in Froude’s construction, Crichton-Browne was able to recast Carlyle as a man who cared heroically for his wife and whose apparent remorse at her death was part

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168 Sir James Crichton-Browne, ‘Carlyle—His Wife and Critics’ [Part of the Inaugural Address, delivered to the Edinburgh University, Dumfriesshire, and Galloway Literary Society. 6 November 1897], in *JMS*, XLIV (1898), 76-95: pp. 78, 79, 79-80, 81.
of his nature as 'the most purely Teutonic and grandly Titanic genius that has yet arisen'.

Concerns over the propensity of excessive hard work to precipitate deleterious effects such as insanity had appeared intermittently, but regularly, in the pages of psychiatric literature during the period. Investigations were made into the physiological effects that overwork might have on the mind. Thus the English alienist Forbes Winslow, in an article in 1853 in the *Journal of Psychological Medicine and Mental Pathology*, argued that 'modern psychologists' had noted the results of 'excessive intellectual activity on the mental powers, particularly with reference to the increase in the numbers of the insane.' In Winslow's view, the modern increase of mental activity and 'the evils of excessive study' generally manifested

'themselves in morbid conditions of the organ of thought, which, reacting on the mind itself, disorder its manifestations. Hence, it has often been observed how narrow the bounds are between great genius and madness; how frequently the organ breaks down under the strain to which it is subjected.'

Yet it is important to note that the kind of madness to which Winslow referred was not congenital but that derangement resulting from a period of intense intellectual activity. Winslow thus conflated the idea of genius with that of hard intellectual labour. The kind of mental alienation that Winslow proceeded to describe as being 'the most distressing' that were directly linked to 'excessive mental labour' were 'melancholic and the suicidal monomania'. One class of 'overworkers' that Winslow judged important in his scheme was the young, 'in whom the brain is worked before it has attained its full development and capacity for labour.' This was the lot of the student: 'Perhaps the overworked student is as familiar an instance of the fearful results which follow on excessive mental culture, as the overworked literary man. The universities and colleges afford numerous examples'.

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172 Winslow, 'The overworked mind', p. 267; Winslow's emphasis.
Winslow’s paper may be read as providing the Christian gentleman with due warnings against taking the Anglican/Puritan work ethic to extremes, in reminding the individual that rest was a gift from God, and as important a duty as was the onus to observe the divine injunctions to work. Thus he argued that it was of ‘far greater importance that the labourer shall so labour that he shall gather strength, and not weakness, from his toil, in accordance with the order of Divine Providence. To this end there is only one way, namely, to labour in humble subjection to the laws of our mental and corporeal well-being.’ Once the symptoms of overwork appeared, including a flushed face, coupled with irritability,

‘a cessation from labour is strenuously indicated. From that moment, all headwork is out of the capital stock of strength; it is true wear and tear, and the loss thus incurred must either be speedily replaced, or disorder and disease will result. Physiological laws, it cannot be too well remembered, are as inexorable as the physical. The rest is comprised in two things;—GENTLE BODILY EXERCISE, SLEEP.’

The middle-class ideology of labour, with its values of hard work, zeal and application and their links with achievement that had been made commonplace by the self-improvement literature, and which influenced men such as Darwin, was also, therefore, dangerous. Although there were virtues in the hard work, the intensive dedicated study celebrated in Victorian culture, if carried to extremes it was capable of rendering young minds exhausted, their intellectual faculties, as Daniel Hack Tuke wrote in 1857, being subject ‘to an amount of excitement unknown to savage tribes.’ Civilisation, which brought with it greater development of the intellectual faculties, had, in Tuke’s opinion, the ability to burden mankind with an acuteness of sensibility and ‘an intense activity of the feelings’. This gave Tuke reason to fear that ‘insanity attains its

174 Winslow, ‘The overworked mind’, pp. 272-276; quotes pp. 273 and 275, Winslow’s emphasis. Overwork was seen to have other detrimental effects, such as aggravating cases of anaemia, see Theophilus Thompson, M.D., F.R.S., Physician to the Hospital for Consumption and Diseases of the Chest, ‘Mental labour; its effects on the blood’, Journal of Psychological Medicine and Mental Pathology, X, vol. 5 (new series) (1 January 1857), 88-95.
175 Darwin had read Smiles’s Lives of the Engineers (1861-2), which supplied detailed accounts of heroic self-improvement; when Smiles visited Darwin in 1876, they discussed during the course of their meeting Smiles’s biographies of heroic engineers and artisans, see Janet Browne, Charles Darwin: The Power of Place (London, 2002), p. 385.
maximum development among civilized nations; remaining at a minimum among barbarous nations, as well as among children, and animals below man.'

The matter arose again in 1875 in a paper presented to the Medico-Psychological Association. Frederick MacCabe, the Resident Physician at the State Criminal Asylum in Dundrum, in Co. Down, Ireland, argued that increasing competition for jobs requiring intellectual ability was resulting in over-exertion. As MacCabe had it, 'it appears to me that its most significant and characteristic feature is to be found in the circumstance that it is essentially a period of extreme, nay premature, mental activity and competition.' MacCabe viewed this 'excessive mental activity' as extending to all pursuits. 'Regarding, as I do, this mental strain as one of the characteristics of the age', MacCabe continued,

'I believe we must seek for its origin in the general spread of education which has, it is to be feared, somewhat fostered an unhealthy contempt for manual and mechanical labour. It has been intensified by the adoption of a system of competitive mental tests of competency. With the extension of compulsory education and the increasing overcrowding of the professions this struggle for existence by brain-work would appear likely to become more severe.'

MacCabe maintained that this struggle was attended 'with such serious risk to the mental integrity of the competitors' that he believed it 'not inopportune' for the Medico-Psychological Association 'to raise a warning voice against the evil effects of mental strain and overwork.' The 'multiplicity of intellectual pursuits' within 'modern civilization' meant that,

'the supply of those who seek to live by brain-work, rather than by the toil of their hands, exceeds the demand. This excess of supply over demand has produced a competitive system of intellectual tests—these have gradually increased in severity—and hence training for them has to be undertaken at an increasingly immature age. The claims of education are gradually and steadily infringing upon the years that formerly were devoted to exercise and schoolboy's play. The shadow of future competitive examinations, which at first

176 Daniel H. Tuke, 'Does civilization favour the generation of mental disease?', JMS, IV, no. 23 (October 1857), 94-110: quotes pp. 110, 96, 109; see also pp. 95-96.
177 Frederick MacCabe, 'On mental strain and overwork', JMS, XXI (October 1875), 388-402: p. 391.
curtailed the sunshine enjoyed by lads in the higher forms of our public schools, next shortened the playtime in elementary schools, and now fairly darkens the threshold of the nursery.\footnote{MacCabe, ‘On mental strain and overwork’, pp. 392, 401.}

Warning against the effects of intellectual overstrain, MacCabe contrasted the ‘reckless expenditure of nervous power’ in ‘intellectual avocations of adult life’ with the ‘health-giving pastoral and agricultural pursuits’. Glorifying intensive intellectual work precipitated an unhealthy form of society in MacCabe’s view, ‘and, from a psychological point of view, is not unattended with risks. How often do we observe a youthful brain, precociously brilliant in its promise, associated with a feeble frame and a halting circulation. Such an organism requires rather the care of the physician than the culture of the schoolmaster.’ It was overstrain therefore, the ‘high pressure education and intellectual competition of the age in which we live’, that was the potential root cause of ‘much of the bodily suffering and mental anguish that spring from the various prevalent forms of nervous diseases’, such that, MacCabe warned, ‘Beyond a doubt no system of training could be devised more radically unsound than the present when applied to the offspring of families in whose histories there lurks the taint of mental unsoundness.’\footnote{MacCabe, ‘On mental strain and overwork’, p. 402.}

Fears over the degenerating effects of hard work on the population also surfaced in discussions concerning genius itself during the 1890s. Some British psychiatrists suggested that insanity was not a condition concomitant with genius, but would only result when the brain of a genius was overworked. In the \textit{JMS}, William Ireland argued during his appreciation of the Italian poet, Tasso, that there was nothing inherently pathological in genius, indeed,

‘The man of genius only possesses in heightened power capacities which all men of sound mind have in lesser degree. We suppose that genius is a born aptitude to perform some things much better than most people can, and that it is largely dependent upon greater perfection of organisation and brain function.’

Yet Ireland asserted that genius was not \textit{in itself} a form of pathology. At issue instead was the problem of the tendency to overwork and burn-out:
'Such capacities are no doubt likely to lead to over-strain, and the example of Tasso proves no more than that men of high poetical genius are not exempt from mental derangement. Insanity, however, is fatal to genius and to all high mental and moral endowments.'

Among English upper middle-class concerns during the second half of the nineteenth century was the preoccupation with the healthy. As the evidence above indicates, there was an awareness in some medical circles of the possible detrimental effects that extreme development could have on the race as a whole. These misgivings were also apparent in literature discussing the potentially negative, even dangerous, effects of modern culture, its civilisation and education, as well as the presence of 'social pathologies', such as suicide, alcoholism, and crime, on the human stock, and whether or not such features of modern culture could be factors in the increase of mental illness. Gradually in some élite scientific circles, a belief in progress was being replaced by warnings as to possible degeneration: whereas Darwin had emphasised in the *Origin* that 'as natural selection works solely by and for the good of each being, all corporeal and mental endowments will tend to progress towards perfection', by the time the *Descent* appeared in 1871, this was qualified by warnings about the direction of civilisation: if the 'reckless, the vicious and otherwise inferior members of society' were not prevented from 'increasing at a quicker rate than the better class of men', then 'the nation will retrograde, as has occurred too often in the history of the world. We must remember that progress is no invariable rule.' Mental exertion had been seen as the accompaniment to rigorous physical exercise at English education establishments; the English in this reading were hardworking, manly athletes, the bastions of the new

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180 Ireland, 'Torquato Tasso and his biographers', (part II), p. 816.
Englishness being perceived to be the male dominated public schools and the ancient universities. Working within this culture, one that celebrated hard work, both physical and mental, British psychiatrists came to view intellectual work taken to excess as a potential contributory factor to physical and mental degeneration. These concerns over the overstraining of the nervous system and intellectual faculties, besetting humanity with anxieties, with its attendant struggles strewing humanity with 'mental wreckage and physical degeneration', continued to occupy some authors into the dawning of the next century.

For the British scientific élite therefore it was a question of balance. While this pursuing of education and refinement was potentially detrimental, some proposed that education, especially scientific education, would be of the utmost benefit to the race. Some worked assiduously in promoting scientific education believing it could institute regeneration. The biologist Edwin Ray Lankester (1847-1929), for instance, urged in an address to the British Association meeting in Sheffield in 1879 that the stimulation of the mental qualities that scientific education prompted was essential 'for the protection of our race ... from relapse and degeneration.'

Nor were such concerns limited to scientists. The moral injunctions to hard work discussed in Chapter 3, plus increasing warnings concerning overwork, were features of other examples of moralising high Victorian literature that aimed to encourage self-improvement. Some clerics took a great interest in education and the proper ways of developing the intellects of the young. For instance, The Dawnings of Genius, a study of juvenile biography, written by Rev. Theodore Alois Buckley in 1853, discussed common beliefs about the negative effects of overwork on the developing nervous systems of the young. Characterising 'mental excitement' as 'feeding treacherously on

187 See the Presidential Address given by Dr. Robert Jones, President of the Section of Psychological Medicine, at the annual meeting of the British Medical Association at Swansea in 1903. A review of his address, 'The development of insanity in regard to civilisation', appeared in the JMS, XLIX, no. 207 (October 1903), 776-777; quote p. 776.
the bodily frame', Buckley observed that this could lead to death.\(^\text{189}\) In his *Character* of 1871, Samuel Smiles felt the need to conclude his fourth chapter, which was principally concerned with the *benefits* of hard work for mind and body, with two paragraphs outlining the problems engendered by overwork. Distinguishing between *hard* work and *overwork*, Smiles asserted that, 'Brain-work, in moderation, is no more wearing than any other kind of work. Duly regulated, it is as promotive of health as bodily exercise'. But 'overwork is always bad economy', especially when conjoined with worry. Thus it was that,

> 'Overwork and worry have both to be guarded against. For over-brain work is strain-work; and it is exhausting and destructive according as it is in excess of nature. And the brain-worker may exhaust and overbalance his mind by excess, just as the athlete may overstrain his muscles and break his back by attempting feats beyond the strength of his physical system.'\(^\text{190}\)

It was hence in terms of hard work, and overwork, that the lives of certain celebrated figures, heralded as geniuses, were analysed in British literature. The example of Newton reveals the different ways in which authors with differing agendas were able to manipulate biographical information on Newton in order to suit their own ends, resulting in judgments of Newton as a unique individual, embodying a duality as insane genius and dispassionate scientist.\(^\text{191}\) Lombroso, for instance, sketching an image of the natural philosopher drawn from Newton’s letters to Locke, asserted that Newton was ‘in old age afflicted by a real mental disease’. Lombroso believed this was visible in the ‘confused and obscure style’ of the letters, which seemed to suggest that, ‘even later on, he was suffering from delusions of persecution.’\(^\text{192}\) Nisbet was more strident in his claims about Newton’s insanity, a condition to which, Nisbet insisted, Newton was hereditarily predisposed. Speculating that Newton had inherited ‘the neuropathic influence’ from his paternal side, Nisbet declared that, ‘No reasonable doubt can be entertained that Newton’s mind gave way, and that temporarily at least he had some of the delusions of insanity.’ Citing David Brewster’s *Life of Sir Isaac Newton* (1831), Nisbet observed that Brewster was ‘very angry at the suggestion’ of Newton’s insanity,

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\(^{192}\) Lombroso, *L’uomo di genio*, p. 70; my translation.
'but the facts are too strong for him.' Again quoting Newton's letters to Locke, Nisbet argued fiercely against the prevailing Brewster view:

'That these letters should never have been suspected by such a man as Sir David Brewster to contain indications of mental aberration on the part of the writer, shows how deeply rooted is the prejudice that genius is a strong and well-balanced condition of mind. After this period Newton was never himself again. His letters to Flamsteed on the lunar theory, written two years subsequently, exhibit a strange incoherence, and Professor de Morgan thinks that from the time of Newton's settling in London (he was appointed Master of the Mint in 1696) 'his judgment underwent a gradual deterioration.'

But for Ellis, writing his *Study of British Genius*, based on data gleaned from the *Dictionary of National Biography* in 1904, Newton was a fundamentally sane man whose overwork had precipitated senile dementia. Splitting his list of those whose lives purportedly demonstrated a link between insanity and genius, Ellis devised four categories: those who were insane for most of their lives, those who demonstrated slight or temporary insanity, those who were perfectly sane but who subsequently developed dementia, and those on the borderland between eccentricity and mild insanity. Ellis suggested that Newton perhaps fell into the third category, though he included a question mark by his name:

'A third group consists of men who were perfectly sane during the greater part of long lives filled with strenuous intellectual activity, although in two or three cases there was morbid mental heredity or eccentricity in earlier life, but became insane towards the end of life. These cases, twelve in number, which may usually be fairly regarded as senile dementia, are H. Cavendish, Colman, Marsh, Newton (?), J. Pearson, Sabine, Southey, Stephen, Swift, Warburton, S. Ward, T. Wright.'

By the late nineteenth century therefore, genius was reinterpreted in the British psychiatric literature: instead of conflating it with insanity and other neuroses, British


psychiatrists referred to those who, through a combination of an excess of ability and an underlying philosophy of the Puritan hard work ethic, worked themselves to breaking point. But this was not the unthinking, monotonous and repetitive form of physical labour found in the factory production lines. This form of labour involved exertion of the individual mental processes to such an extent that it weakened the physical condition and led to breakdown. Overwork, as practitioners such had Gully had been emphasising since the 1840s, was a morally upright condition from which to suffer. Within mainstream British psychiatry those who suffered from overstrain were not stigmatised as degenerates, as victims of their bad organisation; instead, overwork remained a condition that was precipitated by excessive dedication to the laudable ideals of hard work and self-improvement, and which could be corrected.

Ellis’s Reaction

British scientific rejection of Lombroso’s work intensified in the beginning of the twentieth century, as Lombroso’s theories, not least his attempt to identify the pathological somatic nature of genius, came under increasing criticism. It is significant that Lombroso’s quondam champion and populariser, Ellis, added his voice to the reassessments of the value of Lombroso’s theories. In compiling the resources for his A Study of British Genius (1904), Ellis stressed his desire to avoid ‘the superficial and casual and unsystematic ways current in the past’. Using the sixty-six existing volumes of the newly-published Dictionary of National Biography, Ellis drew up some information about individuals’ characteristics and traits, in order to construct ‘an authoritative and well-balanced scheme of the persons of illustrious genius, in every department, who have appeared in the British Isles from the beginning of history down to the end of the nineteenth century’, arriving at a final figure of 1030 eminent people. In approaching this group, Ellis employed the method ‘which in France Dr. Toulouse adopted so brilliantly and thoroughly (notably in his study of Zola) in approaching the individual man of genius.'
Lombroso's basing of his theoretical system of genius on literary works, using critical opinions and biographical details to plug the gaps, had inspired French alienists to attempt similar studies. Testing degenerationist theories, French psychiatrists used the novels of Émile Zola, Honoré de Balzac and others in order to investigate the personalities of great literary men. However, towards the end of the century in France, there was a reaction against the work of men such as Nordau, whose Entartung had castigated Zola as a degenerate. Zola was taken as a living subject of examination by Édouard Toulouse, Professor of Psychiatry at the School of Medicine of Paris and Physician at the Asylum of Sainte-Anne. Published in 1896, Toulouse's study of Zola contradicted the findings of Nordau and the theories of the 'lombrosiennes': Toulouse declared that 'M. Zola n'est pas épileptique.' Relatively little attention was afforded Zola in British psychiatric writing, although reviews of Toulouse's book did appear.

Following Toulouse's comprehensive approach of embracing a wide range of characteristics, Ellis investigated British genius from every possible angle. He drew into his ambit the different races that comprised Britain, as well as considerations of social class, heredity, characteristics of childhood and adolescence, whether the subjects had married and reproduced, their duration of life, hair and eye colour, stature and types of characteristic pathology. On several points during his exposition Ellis took issue, indirectly, with theses that had been proposed in Lombroso's L'uomo di genio, the version Ellis had translated. Significantly, Ellis downplayed the connection Lombroso had insisted on between genius and insanity:

'To the relationship of insanity with genius great importance has by some writers been attached. That such a relationship is apt to occur cannot be doubted, but it is far from being either so frequent or so significant as is assumed by some writers, who rake together cases of insane men of genius without considering what proportion they bear to sane men of genius, nor what relation their insanity bears to their genius.'

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201 Ellis, British Genius, p. 169.
Ellis found that the incidence of insanity among his sample of 1030, was 4.2 per cent.

Similarly, Ellis disputed Maudsley's claim that 'there is hardly ever a man of genius who has not insanity or nervous disorder of some form in his family.' Ellis excused Maudsley's bold assertion by allowing that, 'It is many years since that statement was made', yet he pursued his point: 'neither Dr. Maudsley nor anyone else has ever brought forward any sound evidence in support of it.' Distancing himself from Maudsley's pessimism and from the Lombrosian school, Ellis argued that, 'Periods of insanity may alternate with periods of high intellectual achievement, just as gout may alternate with various neurotic conditions, but the two states are not concomitant, and genius cannot be accurately defined as a disease.' It appears that there were a few conditions where Ellis did concur with the findings of the Italian psychiatrist. Ellis observed that while 'grave nervous diseases of definite type seem to be rare' among the eminent in Britain, other characteristics, which Lombroso had described, were more apparent: 'there is ample evidence to show that nervous symptoms of vaguer and more atypical character are extremely common.' Under this category, Ellis included eccentricity, stammering, nervous tics, short sight, clumsiness and awkwardness of movement.

Yet there was one category of physical disorders that was mentioned by Ellis but not by Lombroso: 'a pathological condition which occurs so often, in such extreme forms, and in men of such pre-eminent intellectual ability, that it is impossible not to regard it as having a real association with such ability. I refer to gout.' Ellis observed that, although it was not common among the general population, and while it was possible 'only to speak tentatively' of the nature of the pathological relationship between genius and gout, it was found in fifty-three of the cases he examined of eminent men, including Milton, Newton, Johnson, and Darwin, 'often in very severe forms.' Nisbet had also stated that, although gout was 'popularly believed to be the result of good living notwithstanding its frequent occurrence in poorly-nourished people,' it was 'an important member of the group of nerve diseases now under consideration.' Gout, particularly within the British tradition, was often interpreted as a sign of superiority. It

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was also within some literary traditions seen as a great enabler; for George Cheyne in Georgian England therefore, as George Rousseau and Roy Porter suggest, 'his gout was the virtual maker of his creative imagination.'

Certainly, as Ellis proposed, it might be that, 'given a highly endowed and robust organism, the gouty poison acts as a real stimulus to intellectual energy, and a real aid to intellectual achievement.' Yet, Ellis urged, genius was not 'in any sense' a product of gout: 'It is easy enough to find severe gout in individuals who are neither rich nor wise, but merely hard-working manual labourers of the most ordinary intelligence.'

By 1904 then, Ellis neither stood with Galton, that genius was a strictly normal, 'purely healthy' variation, and he distanced himself from Lombroso and other alienists who assumed that genius was a 'radically pathological condition'. Instead, genius to Ellis was 'a highly sensitive and complexly developed adjustment of the nervous system along special lines, with concomitant tendency to defect along other lines.' Thus he argued that 'so many men of the highest intellectual aptitudes' tended to demonstrate the poor muscular coordination and clumsiness 'which marks idiots'. Ellis believed that, in view of the existence of idiots savants, the 'wonderful calculators', and the men 'whose intellectual originality is strictly confined to one field', it was not surprising that 'we may bridge the gulf that divides idiocy from genius.' In Ellis's view therefore, the real affinity of genius was with congenital imbecility, rather than with insanity:

'If indeed we consider the matter well we see that it must be so. The organisation that is well adapted for adjustment to the ordinary activities of the life it is born into is not prompted to find new adjustments to suit itself. The organic inhibition of ordinary activities is, necessarily, a highly favourable condition for the development of extraordinary abilities, when these are present in a latent condition.'

Ellis asserted that his conclusions on British genius were 'by no means either novel or modern. It is that of most cautious and sagacious inquirers', and was a form of argument, adopted 'rather vaguely' by Moreau (de Tours) in his La psychologie morbide of 1859.
Although Ellis wanted to leave no doubt that his conclusions did not deny the significance of insanity, he nevertheless emphasised the belief, which had been proposed within British psychiatric thought since the 1850s, that overwork was the real cause of insanity in genius. 'It must not,' Ellis insisted, 'be hastily concluded that the prevalence of insanity among men of genius is an accidental fact, meaningless or unaccountable. In reality it is a very significant fact.' Ellis explained his belief that the 'intense cerebral energy of intellectual reaction' involved

'an expenditure of tissue which is not the dissolution of insanity, for waste and repair must here be balanced, but it reveals an instability which may sink into the mere dissolution of insanity, if the balance of waste and repair is lost and the high pressure tension falls out of gear. Insanity is rather a Nemesis of the peculiar intellectual energy of genius exerted at a prolonged high tension than an essential element in the foundation of genius.'\(^209\)

Ellis's Study was reviewed in the *BMJ* in 1906. The reviewer's emphasis on Ellis's reassessment of the relationship between genius and insanity in his brief review suggests further the reaction against Lombroso's theories within orthodox British science. Ellis had shown, the reviewer explained,

'how much the frequency of insanity amongst geniuses has been exaggerated. Of his 1,030 geniuses, only 4.2 per cent. were mad at any period of their lives, a fact which disposes of the notion that insanity is an essential part of genius.'

Interpreting Ellis's study as generally 'free from bias', the reviewer contrasted Ellis's methodology with that of former investigators into the nature of genius:

'Mr. Havelock Ellis does not discuss the causes of the distribution of genius in the British Isles. But he has made an addition to the literature of the physiology and pathology which is far more solid and better "documented" than the more showy treatises of writers like Lombroso and Nisbet. He spins no gossamer cobwebs of theory; he sifts his evidence critically, and he sums up dispassionately.'\(^210\)

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\(^209\) Ellis, *British Genius*, pp. 207-208.
Such views as Ellis’s were also shared by professional psychiatrists at the dawn of the twentieth century. However isolated Maudsley was in mainstream British psychiatry, he nevertheless came to share ideas about genius similar to those of his colleagues. While recognising that ‘the special and complex compositions of elements in genius are sometimes so unstable in the individual case as easily to burst into explosions of insanity’, nevertheless, he rejected the view that genius was concomitant with pathology. Indeed, far from being pathological, Maudsley maintained that men of large and over-arching genius were necessary ‘to absorb, collate, co-ordinate and fructify the results of specialization apt to run into barren details’. It was the responsibility of the man of genius to work with nature:

‘Into the superior protoplasmic susceptibility of his sympathetic brain steal imperceptibly the subtle influences of surrounding Nature, interworking there—for the most part subconsciously—to be projected outwards in forms of beauty and invention.’

_Shakespeare and Healthy Genius_

The British psychiatric élite’s view of genius as healthy and important is seen most clearly in their examinations of Shakespeare. One feature common to books aimed at a wide readership in Britain, whether written by psychiatric or lay writers, was a treatment of Shakespeare as an unrivalled genius, with little attempt being made to accommodate him within the genius-as-pathology thesis. But there was not total agreement. Committed as ever to the conception of the pathology of genius, Nisbet exceeded even Lombroso by asserting that Shakespeare suffered from nervous disorder. Lombroso had referred to the English playwright only in passing, treating Shakespeare as one of his own mould, dubbing him ‘the great poet-alienist who divined insanity in genius, and left a monumental depiction of it in Hamlet, the man afflicted by folie du doute.’

Nisbet, on the other hand, devoted a whole chapter to the playwright, in which he compiled a wealth of circumstantial evidence to deal with Shakespeare ‘from the pathological point of view, a task which, despite the immensely painstaking and far-reaching character of modern research, is now undertaken for the first time.’

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211 Maudsley, _Heredity, Variation and Genius_, pp. 66, 43-44.
212 Lombroso, _L'uomo di genio_, p. 48; my translation.
Nisbet discussed what he took to be the extraordinary mortality of Shakespeare's brothers and sisters, suggesting that neither of his parents had been 'normally sound.' Examining Shakespeare's signatures on his will, Nisbet interpreted them as having been penned in a condition of 'extreme nervous agitation', feeling the weight of this evidence meant that 'the conclusion is forced upon us that his ailment was a prostration of the nervous system.' For Nisbet, following Lombroso's epileptoid genius model, the circumstances of Shakespeare's death 'would accord with a paralytic or epileptic seizure', indeed, Nisbet opined, Shakespeare's 'immense creative power' could 'only be understood in connection with a morbid impressionability.'

However, such a treatment of Shakespeare was atypical of British discussions of the playwright that considered psychiatric angles. A number of British psychiatrists showed enthusiasm similar to that of their continental counterparts for applying psychiatric interpretations to the works of men of literary genius. Discussion was precipitated by the alienist John Conolly (1794-1866), whose *A Study of Hamlet* was published in 1863. The character of Hamlet became one of the most popular foci for discussion. By 1860, Conolly was living in retirement and concentrating his efforts on this study, an essay designed to prove that Hamlet had been mad. Such a man, a reviewer in *The Saturday Review* believed (which was reported in the *JMS*), deserved to be heeded when he took the psychology of Hamlet or Lear for his theme:

> 'His opinion carries the greater weight when, with his proper science, he combines a highly cultivated taste and literary accomplishments. On each of these accounts Dr. Conolly has a claim upon our notice when he writes of madness as delineated or illustrated by Shakspeare.'

Over the course of the second half of the nineteenth century, discussion shifted to the psychology of Shakespeare himself, instead of simply his literary creations. Rather than using the novels and plays of men of literary genius like Shakespeare to prove a theory

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217 Anon., Review of 'Dr. Conolly on the character of Hamlet' from *The Saturday Review*, 4 July 1863, reported in *JMS*, IX, no. 48 (January 1864), 613-618: p. 613
about degeneration, British psychiatrists tended rather to characterise the playwright as one of their own in terms of his profound psychological insights. In their depictions, Shakespeare's genius was to be lauded as it had allowed him to describe insanity with a psychiatrist's precision of observation, without, they believed, having lapsed into insanity himself. For the big shots of British psychiatry such as Conolly, Bucknill and Maudsley, Shakespeare was an awesome genius who, though without formal training, was an impressive precursor in psychiatric description to modern psychiatrists, since in a world before asylums, he had made the most of 'ample' opportunities for 'crude observation' of the mad within the community. In his *The Mad Folk of Shakespeare* (1867), Bucknill described Shakespeare as unsurpassed for psychological insight:

>'Above all seers with whom a beneficent Providence has blessed mankind, to delight and instruct them with that knowledge which is so wondrous that it is falsely called intuitive, is that heaven-born genius, who is the pride and glory of this country, the greatest poet of all ages, and preeminently the most truthful analyst of human action. Shakespeare not only possesses more psychological insight than all other poets, but more than all other writers.'

Bucknill suggested that Shakespeare's genius was so great that he could observe and portray the experience of madness without actually succumbing to it, never losing that mental razor-sharpness. Referring to the 'border country between sanity and insanity—that awful region of doubt and fear,' Bucknill asserted that Shakespeare

>'delights to observe and to explore it, and with his own clear light of genius to look down upon it and through it, and to trace the wanderings and the falls of the erring, misled, spirit; but never, for one moment, does he lose his own sharp and accurate faculty of distinguishing realities and moral probabilities. In his hands the development of an insane character is as strictly amenable to law, as that of the most matter-of-fact and commonplace sanity.'

Appealing to his professional credentials as a psychiatrist, Bucknill cast critical looks at the interpretations of literary critics, specifically scrutinising Coleridge's attempts to

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219 Bucknill, *Mad Folk*, p. 3.

interpret the mental phenomena experienced by Hamlet and the other characters. Criticising ‘other critics and commentators’ who, lacking Bucknill’s psychiatric experience, failed to realise the extent of Lear’s insanity, Bucknill insisted that the subtle transitions of Lear’s final incoherency were only just being revealed by psychiatrists. Bucknill marvelled at Shakespeare’s unschooled yet full appreciation of psychological disorders: ‘Our wonder at his profound knowledge of mental disease increases, the more carefully we study his works’. In Bucknill’s view, Shakespeare displayed a prolific knowledge of principles ‘half of which would make the reputation of a modern psychologist’.

However by the turn of the twentieth century, Maudsley felt the need to address some of the accusations levelled at Shakespeare, that he had been less than the monumental psychological genius that Conolly, Bucknill and Maudsley had described in the 1860s. Thus in his essay of 1905 (later published in 1908), Shakspeare: “Testimonied in his own Bringingsforth”, Maudsley stressed that, although he was a doctor, his assessment of the playwright was ‘not written to prove that Shakspeare ought to have been “put under judicious medical treatment,” strange as that may seem to a literary Professor.’ On the contrary, Maudsley emphasised Shakespeare’s own mental health: ‘If one thing is certain it is that Shakspeare was sanely human and sagely practical in every quality of him, virile in character as in verse, nowise a tense-strung neurotic, nor overstrained idealist, nor mere barren melody-monger, and that his work in life and art was the sincere, full, free expression of his whole self, material and spiritual,’ his work being ‘male and strong without sign of strain’.

Lombroso’s Legacy

Such was the difference in interpretation of the meaning of genius and its occasional mental problems within British psychiatric thought, that there was no place for the Lombrosian idea of the insanity or pathology of genius. The telling appraisals of Lombroso found in the two separate obituaries of him that appeared in the two leading

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221 See for instance, Bucknill, Mad Folk, pp. 53-54 on Hamlet, and pp. 193-194 on Lear.
222 Bucknill, Mad Folk, pp. 167-169, quotes pp. 196-197.
223 Henry Maudsley, Shakspeare [sic]: “Testimonied in his own Bringingsforth” (London, 1905), [published with Heredity, Variation and Genius, 1908], pp. vii, 15, 44.
English medical journals, *The Lancet* and the *BMJ*, show how British opinion to the Italian had developed. By this point, 1909, Lombroso's ideas were widely discredited within Britain. However brief these reviews of Lombroso's life are, they are yet revealing, painting a picture of a man who was well respected as a scientist, but one whose theories ought not to be followed. It is apparent that Lombroso was acknowledged as an important influence for his criminal anthropological works (a fact borne out by the preponderance of this kind of literature in the *JMS*), but his obituarists picked out problems with his methodology. Barely any significance was given to his works on genius. The obituary in *The Lancet* mentioned *L'uomo di genio* in passing, as one of his many works written on the same lines as *L'uomo delinquente*: 'Of these it is unnecessary to give an appreciation, standing or falling, as they do, with the initial work, "L'Uomo Delinquente."' Detailing how all Italy lamented his loss by honouring him with a public funeral, the obituarist reserved judgment on Lombroso's importance in the English context, stating simply that when *L'uomo delinquente* was published in 1876, it 'at once commanded attention and provoked controversy often keen, sometimes embittered.'

The author of the obituary in the *BMJ* treated Lombroso's life in a similar fashion. Concerning Lombroso's study of genius the author confined himself simply to saying that Lombroso had 'applied himself to the study of genius, which he held to be a form of nervous disease. He became celebrated as the founder of a school of criminal anthropology, the doctrines of which were pushed by some of his disciples to extreme consequences that brought his teaching into undeserved derision.' The author clearly had problems with Lombroso's methodology, arguing that although Lombroso was 'a shrewd observer, and a most industrious collector of facts from all sources' nevertheless 'his notions of evidence were very loose, and he lacked the power of presenting his views in logical order.' Even so, 'to him belongs the credit of being a pioneer in a new region of scientific thought, and though much of his work was fantastic and inaccurate, he gave a stimulus to other investigators, which will probably lead to fruitful results.' It seems the feeling of the English medical establishment on Lombroso's death could be summed up much as the obituarist in the *BMJ* wrote in conclusion to his treatment of

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Lombroso: referring to the fate of the Spanish seventeenth/eighteenth-century Benedictine scholar and critic, Benito Jerónimo Feyjóo y Montenegro, the obituarist suggested that, for Lombroso's memorial, 'a statue should be raised to him, at the foot of which his own writings should be burnt.'

Following Lombroso's death the period of reaction continued, whereby scientists renegotiated the relevance of Lombroso's work for the findings of criminal anthropology and psychiatry. *The English Convict: A Statistical Study* by Charles Buckman Goring (1870-1919) was published in 1913, and was the first treatise in the English language to oppose Lombrosian criminal anthropological thinking. Goring, a medical officer at HMP Parkhurst, based his book on the examination of nearly four thousand prisoners, an investigation prompted by the Prison Commission in 1902, designed to test Lombroso's theory. Goring stated that although Lombroso's proposals of the existence of a criminal type had been long refuted, yet the popular image of 'the criminal' persisted, fanned by scare-mongering journalism and the hype that surrounded the Ripper murders. Although *The English Convict* was soon viewed as a 'methodological classic' that definitively repudiated Lombrosianism, Goring's position came to be seen as ambiguous, parallel rather than opposed to Lombrosianism.

Lombroso's interpretation of the nature and origin of genius did not die completely with him in Britain. The influence of Lombroso and Nisbet persisted well into the twentieth century in the writings of one man: Theophilus Bulkeley Hyslop (1864-1933). An Edinburgh medical graduate in 1886, and becoming later the Medical Superintendent at the Bethlem Hospital, and a prominent lecturer, Hyslop gave well-attended lectures on insanity at St. Mary's Hospital in London, as well as public talks on insanity, especially as it related to art. In a series of books and papers between 1911 and his death, Hyslop followed a Maudsleyan pessimistic line regarding the general decline of the race into insanity. In *The Borderland* (1924, 1925), he argued that although genius was 'not invariably associated with, or symptomatic of, a neuropathic process' it was,

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Stephen Trombley, 'All that Summer She was Mad': *Virginia Woolf and her Doctors* (London, 1981), p. 213.
‘nevertheless, often closely allied to the neuropathic diathesis (liability to nervous disease), as evidenced in the histories of past and present geniuses.’ These ideas had their fullest expression in his book, The Great Abnormals of 1925, which promoted the pathologisation of mental abnormality such as genius, drawing his largely unsubstantiated anecdotal information from the books and examples given by Lombroso and Nisbet.\(^{228}\)

But this was atypical of the British reaction to the concept of the pathologised genius. Reviews of these works in psychiatric journals suggest that contributions to the discussion over the pathology of genius within Britain were ignored or criticised by the mainstream psychiatrists, due to difficulties both with the methodologies employed in proving the conclusions, and the degenerationist and materialist philosophies that underpinned them. Indeed Lombroso’s fall from public view and memory has been attributed to his emphasis, from the late 1880s, on the significance of degeneration theory for his work.\(^{229}\) Within British science there was not the intellectual background of research to support a thesis that depended on there being a visible and recognisable typology for individuals. Galton’s work on anthropometry, his investigations into composite photography and fingerprinting, all suggested that each human being was a unique individual. The notion that there might be physical characters or stigmata, as indicators of genius or any other category, was rejected or ignored in Britain as part of the reaction against a secular, pessimistic, and expressly deterministic portrayal of the fate of humanity.

But the British psychiatric view of the idea of genius was complex, with no party line being drawn. Genius was often described it terms of what it was not, but there at least there was some consensus. After the publication in the early 1890s of Ellis’s version of Lombroso, Nisbet’s populist treatise, and Galton’s new preface to his Hereditary Genius in which he exchanged ‘genius’ for ‘ability’, the British psychiatrists of the decades straddling the turn of the twentieth century generally agreed that genius was not purely hereditary, and not pathological. By the end of the first decade of the twentieth


century, Lombroso's ideas had been discredited, and discussion of genius per se disappeared from such organs as the *JMS*, suggestive of difficulties in describing genius in objective and technical terms. This interpretation might best be summarised in the words of a *JMS* reviewer in 1893, appraising Galton's second edition of *Hereditary Genius*: the reviewer declared that the study of genius 'has perhaps been too much in the hands of alienists like Lélut and Moreau and Lombroso, who have been biassed in favour of the belief that abnormal psychology is necessarily morbid psychology.' He continued,

'It certainly does not follow that because genius has certain relationships to insanity, genius is itself a form of insanity. At present it is not possible to give a sound scientific definition of genius; it is probable that it will become possible when anthropologists and psychologists in the broadest sense have further worked at the matter. It is among the services rendered by Mr. Galton's book that it has largely helped to clear the field, and to render possible the precise psychological study of "genius in the technical sense."'

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CONCLUSION

The present thesis has attempted a genealogy of the concept of genius in a variety of British writings. It began by seeking to investigate the assertion, proposed by George Becker and subsequently accepted by a number of historians, that a controversy concerning the existence of the mad genius had emerged in Britain by the end of the nineteenth century. Careful analysis of the British context, however, exposes the inaccuracy of this interpretation.

Becker insisted that in their bid to distinguish themselves and their genius from the commonality, the Romantic poets had cultivated an image of their own madness. However, as the present research has revealed, the Romantic poets argued the reverse, stressing that true genius was a fundamentally healthy entity. As the work of both Samuel Taylor Coleridge and William Hazlitt indicated, some of the key Romantic figures emphasised the importance of the health of the body and the mind in order for genius to be displayed to best effect.

The second part of Becker’s claim, that the Romantics’ styling of themselves as mad was taken up by psychiatrists later in the nineteenth century, who made explicit a link between originality and insanity, has also been proved erroneous in the British context. Rigorous historical investigation of the idea of the pathology of genius, as posited by Cesare Lombroso and discussed by Henry Havelock Ellis and John Ferguson Nisbet, shows the insubstantial nature of the evidence proposed by Becker for the existence of a widespread debate. As the final chapter indicated, there was resistance in British psychiatry to the medico-psychiatric and forensic purpose that Lombroso had intended for the categories of the criminal and the mad genius as degenerative types. Within the British context therefore, the influence of the idea was limited to one self-appointed populariser of Lombroso’s ideas (Ellis), and a Scottish journalist whose zeal for the idea exceeded his scientific credentials (Nisbet).

The present project has sought to unearth the context for this British experience. It proposes that there was no élite psychiatric interest in the Lombrosian project to identify the physical characteristics of the pathological genius within Britain. This is in part
because of the prevailing British hostility to the idea of there being identifiable
typologies of criminals, and a resistance to analyses that relied on anecdote and
evidence drawn from discredited sciences such as phrenology and physiognomy.
Analysis from British psychiatric sources, published during the 1880s and 1890s,
demonstrates the perceived weakness of the Lombrosian interpretation of there being an
identifiable ‘face’ to the criminal or the genius.

The difference between the British and Italian psychiatric communities’ interpretations
of genius could be attributed to differences between the political climates of Britain and
Italy. Within the newly unified Italy, Lombroso’s research, helping to establish who
belonged to and who was permitted to participate in the new nation state, appealed to
the élite of the Postrisorgimento. In imperialist Britain on the other hand, where
nationalism could be read as an atavism, there was no corresponding urgency to define
groups of individuals who were to be excluded from the empire. On the contrary, the
British imperialist project was an attempt at including all types of humanity, an
inclusion that entailed the subjugation of other races under the British interpretation of
civilisation.

Yet the material investigated above has indicated other reasons for the ambivalence of
the British psychiatric élite to the ‘mad genius’ category. One of the most significant is
that, within scientific discourse by the late nineteenth century, ‘genius’ had been
gradually eclipsed, and replaced with language that appealed to a less contentious set of
qualities. The response of the mid-nineteenth-century scientific élite to the term
‘genius’ can be seen in terms of a bourgeois reaction against all that was undesirable
about the Romantic period. The Romantic genius, with its connotations of addiction,
revolution, solitude and individualism, represented not only a threat to middle-class
respectability, but also specifically to the kind of collectivised, collaborative British
science that philosophers of science, most notably William Whewell, sought to
promote.

As Chapter 3 traced, the middle-class scientists of the early and mid-Victorian period
celebrated not the disembodied, revolutionary genius of the Romantics, but a different
range of qualities that stressed the morality of the individual. Initially, as Whewell
developed his scientific philosophy, this morality was based on a natural theological
interpretation of Creation, a theologically neutral philosophical position, aimed at accommodating the broadest spectrum of religious faiths.

This has highlighted the significance of a previously underestimated framework of analysis: the relevance of differences in religious attitudes in accounts of genius. In the liberal Anglican endorsement of the collective ideal, it was not simply the solitary nature of genius that was unappealing, but also the implication of its exclusive, spiritual superiority. As the idea of genius had been Christianised by the Scottish Presbyterian Enlightenment writers, William Duff and Alexander Gerard, 'genius' was redefined to suggest a hierarchy in the relationship between spirit and matter. This idea of hierarchies in which genius had a role to play, mediating between the realms of spirit and matter, remained an important one for some writers, particularly Samuel Taylor Coleridge, as is seen in his *On the Constitution of Church and State* (1829), and Humphry Davy, evident from his *Consolations in Travel* (1830). It invoked not only a temporal pecking order between the extraordinarily gifted and the average man – one that was not to be overturned simply by hard work on the part of an ordinary individual – but it also served as a reminder of the transcendence of God over humanity.

In his later writing, Coleridge used genius as a device of his social philosophy to argue for the necessity of conservative collective endeavour. For Coleridge in his *On the Constitution of Church and State*, innate individual genius, present in artists, philosophers and clerics, represented shards of divinity that would institute unity between the spiritual and temporal spheres when united in community to form the clerisy. Coleridge's clerisy was a divinely instituted hierarchy and the medium through which divine authority was manifested on earth. Each instance of genius within each member of the clerisy was a channel of communication between God and man; it was divine spirit incarnate. Genius, with its connotations of spirit, thus held a crucial position in the maintenance of this hierarchy. This profoundly Christian philosophy had a lasting impact on the Broad Church and Oxford movements.

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1 Though natural theology was not politically neutral, see John Hedley Brooke, *Science and Religion: Some Historical Perspectives* (Cambridge, 1991), pp. 211-212.
Davy's work illustrates how a religious interpretation of genius could be put to the service of promoting a conservative hierarchy within science. One of Davy's most recent biographers has suggested that Davy's was a personal form of religion tending towards the Protestant, but his treatment of the idea of genius, as well as his evident delight at the Catholic Emancipation, indicate that he possessed strong Catholic sympathies. The different spiritual worlds Davy described are suggestive of a belief in a purgatorial state, there being a heavy onus on the individual spirit to behave well and to use his gifts properly in order to gain entry to a higher spiritual sphere. The present project has illustrated how Davy used genius and his philosophy of the spiritual hierarchy as devices in his Consolations to justify a life dedicated to chemistry and achievement. A personal sense of fame and immortality were important motifs throughout Davy's life, and ones that a Christianised and hierarchical concept of genius could embody and convey to posterity.

The different reactions and interpretations to the idea of 'genius' has highlighted the ways in which spiritual nuances within science were gradually minimised, as is apparent from scientific philosophy emerging in the 1830s. In order to appeal to the widest number of people in his scientific philosophy, William Whewell played down spiritual interpretations in science. As the role of human reason over the significance of spirit was increasingly emphasised, the terminology of 'genius' was also eclipsed. In using other terms, such as 'discoverer' and 'sagacity' in place of 'genius', Whewell replaced the spiritual element with a greater emphasis on the moral.

This emphasis on natural morality was interpreted in some quarters as the thin end of a secularist wedge. The conservative High Churchmen at Oxford, the Tractarians, perceived this attitude, this avoidance of discussing spirit, as typical of the latitudinarianism and doctrinal laxity that threatened the Anglican Church, and as symptomatic of a dilution and gradual erosion of religious belief and authority that was to be resisted. The Tractarian interpretation of 'genius', and its usage by protestant

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2 A useful account of the way in which science could be employed as a social tool to justify temporal hierarchies is found in Steven Shapin, 'Social uses of science', in G.S. Rousseau and Roy Porter (eds), *Ferment of Knowledge: Studies in the Historiography of Eighteenth-Century Science* (Cambridge, 1980), pp. 93-139, especially pp. 135-139.

3 See David M. Knight, *Humphry Davy: Science and Power* (Cambridge, 1992), pp. 4, 175, who argues that 'like most Englishmen, he was deeply Protestant, with a strongly personal religion.' (p. 175).
theologians, preserved the spiritual, God-given element in genius, and was aimed at shoring up existing beliefs in the spiritual and temporal hierarchy and models of authority.

The displacement of notions of 'genius', a displacement that accompanied the shift away from overtly spiritual interpretations within science, is revealed further by the extent to which work became an important dimension in scientific philosophy. For gentleman naturalists such as Francis Galton and Charles Darwin therefore, there was no spiritual component to 'genius'. In Galton's definition in his *Hereditary Genius* of 1869, genius was a combination of capacity, zeal and vigour. Charles Darwin, building on the ideas of his kinsman, had also redefined it in moral, non-spiritual, terms. For him it conjured up a vision of patience and perseverance, mixed with imagination and reason. With the emphasis of a secularised morality over spirituality came a shift in attitudes to the way in which intellectual excellence was achieved. Instead of inspiration and genius, some writers began to celebrate the moral virtues of hard work, making it a prerequisite for the production of good science. Hence for some, such as Charles Darwin, great achievements within science were not the product of the work of genius, but the product of work itself. Previously, hard work had been a characteristic of an expressly Anglican system of behaviour, and had been the foundations of Baconian injunctions of the proper God-oriented pursuit of natural knowledge. However, hard work was appropriated in Britain into a bourgeois system of character, one that was oriented to promoting civilisation not God. While hard work for some remained a duty man owed to God, for others work was a duty owed to widen mankind's knowledge of the universe. As Samuel Smiles had it in 1871, 'Work is the law of our being—the living principle that carries men and nations onward.' Not only personal careers, but also civilisations in Smiles' view, were to be carved by serving at the altar of hard work and personal effort: 'Labour may be a burden and a chastisement, but it is also an honour and a glory. Without it, nothing can be accomplished. All that is great in man comes through work; and civilisation is its product.'

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concept suggestive of a spiritual realm and exclusivity was increasingly an inappropriate term in mid-nineteenth-century British science.

There are therefore further reasons that help to explain the British psychiatric community’s ambivalence to the ‘mad genius’ category at the end of the nineteenth century, besides the British psychiatric rejection of the idea of physically identifiable categories of groups of individuals. Firstly, there was no tradition of using the term ‘genius’ as a defined and objective category within British science by the end of the nineteenth century. Even Galton, whose *Hereditary Genius* (1869) had attempted to provide a hard hereditarist account of genius, felt compelled to write in his preface to the 1892 edition of his book that he had meant to discuss *ability*, and not genius in any technical sense. Evidence from British psychiatrists themselves suggests that they retained a non-technical interpretation of ‘genius’, employing it in their descriptions of the abilities of perhaps the most famous Briton, Shakespeare, as examples of genius. Psychiatrists such as John Charles Bucknill and Henry Maudsley reserved the language of genius to appeal to an extraordinary quality, conferring immortality on the man who possessed it. In the views of Bucknill and Maudsley, Shakespeare was a genius whose work transcended the centuries, possessing a timeless and spiritual quality.

Secondly, by the time Lombroso’s ideas concerning the pathology of genius were beginning to appear within elite British psychiatric books and articles, there was already in place within British medical discourse a framework for accounting for apparent breakdowns in the mental or physical health of the intellectually gifted. This framework was overwork. Besides providing a means to account for a range of both somatic and mental symptoms, overwork also explained breakdown in ways that did not detract from the moral virtue of the individual concerned. In retaining this moral dimension, the idea of overwork was a secularised interpretation of breakdown that provided a framework in which both believers and non-believers could operate. As a mode of analysis that appealed to bourgeois sensibilities, the idea of overwork also allowed for a philosophy of regeneration as against degeneration. By basing the physical and mental breakdown of the intellectually gifted in something that could be reversed, British psychiatrists avoided the pessimism of Lombroso’s and Maudsley’s degenerationist interpretations which proposed models of diseased heredity to account for mental illness.

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The foregoing research has revealed the historical richness of some of the interpretations of genius in Britain over the course of the late eighteenth and nineteenth centuries. In indicating the ways in which conceptions of genius developed over this period, the investigation has also demonstrated the usefulness of the long view approach to historical inquiry. It is to be hoped that it will also encourage scholars to reassess the historical validity of conclusions proposed by exponents of other disciplines within the social sciences.
APPENDIX

Longevity

The category to which Ellis added most examples was one entitled 'longevity'. Lombroso had included six examples of men of genius who had lived to old age, attributing this to a 'diseased apathy'. Lombroso characterised this as a 'diminution of affection, which gives armour to the genius against many assaults, which in short rapidly destroys fibres at once so strong and so fragile, explains the remarkable longevity of men of genius, in spite of their hyperæsthesia in other directions.'

The six examples Lombroso gave of long-lived men of genius in his original text of the fifth edition of *L'uomo di genio* (1888) were drawn principally from ancient Greece:

<table>
<thead>
<tr>
<th>NAME</th>
<th>AGE AT DEATH</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Sophocles</td>
<td>90 [Ancient Greek tragic dramatist]</td>
</tr>
<tr>
<td>2. Petrarch</td>
<td>90 [Italian poet and humanist]</td>
</tr>
<tr>
<td>3. Herodotus</td>
<td>75 [Greek author and historian]</td>
</tr>
<tr>
<td>4. Pericles</td>
<td>70 [Athenian statesman]</td>
</tr>
<tr>
<td>5. Thucydides</td>
<td>69 [Ancient Greek author]</td>
</tr>
<tr>
<td>6. Hippocrates</td>
<td>103 [Ancient Greek physician]</td>
</tr>
</tbody>
</table>

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But in his translation of 1891, Ellis appended a further 82, more modern, examples, without giving their occupations, which I have included:

<table>
<thead>
<tr>
<th>NAME</th>
<th>AGE AT DEATH</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Humboldt</td>
<td>90</td>
</tr>
<tr>
<td>2. Fontenelle</td>
<td>&quot;</td>
</tr>
<tr>
<td>3. Brougham</td>
<td>&quot;</td>
</tr>
<tr>
<td>4. Xenophon</td>
<td>&quot;</td>
</tr>
<tr>
<td>5. Cato the Elder</td>
<td>&quot;</td>
</tr>
<tr>
<td>6. Michelangelo</td>
<td>&quot;</td>
</tr>
<tr>
<td>7. Bettinelli</td>
<td>&quot;</td>
</tr>
<tr>
<td>8. Passeroni</td>
<td>89</td>
</tr>
<tr>
<td>9. Auber</td>
<td>&quot;</td>
</tr>
<tr>
<td>10. Manzoni</td>
<td>&quot;</td>
</tr>
<tr>
<td>11. Xavier de Maistre</td>
<td>&quot;</td>
</tr>
<tr>
<td>12. Hobbes</td>
<td>92</td>
</tr>
<tr>
<td>13. Dandalo</td>
<td>97</td>
</tr>
<tr>
<td>14. Titian</td>
<td>99</td>
</tr>
<tr>
<td>15. Cassiodorus</td>
<td>94</td>
</tr>
<tr>
<td>16. Mlle. Scudéry</td>
<td>&quot;</td>
</tr>
<tr>
<td>17. Viennet</td>
<td>91</td>
</tr>
<tr>
<td>18. Diogenes</td>
<td>&quot;</td>
</tr>
<tr>
<td>19. Voltaire</td>
<td>84</td>
</tr>
<tr>
<td>20. Franklin</td>
<td>&quot;</td>
</tr>
<tr>
<td>21. Watt</td>
<td>&quot;</td>
</tr>
<tr>
<td>22. John of Bologna</td>
<td>&quot;</td>
</tr>
<tr>
<td>23. Vincent de Paul</td>
<td>&quot;</td>
</tr>
<tr>
<td>24. Baroccio</td>
<td>&quot;</td>
</tr>
<tr>
<td>25. Young</td>
<td>&quot;</td>
</tr>
<tr>
<td>26. Talleyrand</td>
<td>&quot;</td>
</tr>
</tbody>
</table>

245
<table>
<thead>
<tr>
<th>NAME</th>
<th>AGE AT DEATH</th>
<th>OCCUPATION, NATIONALITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>27. Raspail</td>
<td>84</td>
<td>[French chemist]</td>
</tr>
<tr>
<td>28. Grimm</td>
<td>&quot;</td>
<td>[German writer]</td>
</tr>
<tr>
<td>29. Herschel</td>
<td>&quot;</td>
<td>[British astronomer]</td>
</tr>
<tr>
<td>30. Metastasio</td>
<td>&quot;</td>
<td>[Italian poet and librettist]</td>
</tr>
<tr>
<td>31. Victor Hugo</td>
<td>83</td>
<td>[French author]</td>
</tr>
<tr>
<td>32. Donatello</td>
<td>&quot;</td>
<td>[Italian sculptor]</td>
</tr>
<tr>
<td>33. Goethe</td>
<td>&quot;</td>
<td>[German writer]</td>
</tr>
<tr>
<td>34. Wellington</td>
<td>&quot;</td>
<td>[British soldier and statesman]</td>
</tr>
<tr>
<td>35. Zingarelli</td>
<td>86</td>
<td>[Italian composer]</td>
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<tr>
<td>36. Metternich</td>
<td>&quot;</td>
<td>[Austrian statesman]</td>
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<tr>
<td>37. Theodore de Beza</td>
<td>&quot;</td>
<td>[Burgundian theologian]</td>
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<tr>
<td>38. Lamarck</td>
<td>86</td>
<td>[French naturalist]</td>
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<tr>
<td>39. Halley</td>
<td>&quot;</td>
<td>[English astronomer]</td>
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<tr>
<td>40. Bentham</td>
<td>85</td>
<td>[English philosopher]</td>
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<tr>
<td>41. Newton</td>
<td>&quot;</td>
<td>[English natural philosopher]</td>
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<tr>
<td>42. St Bernard de Menthon</td>
<td>&quot;</td>
<td>[French; Vicar general of Aosta diocese]</td>
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<tr>
<td>43. Bodmer</td>
<td>&quot;</td>
<td>[Swiss historian and writer]</td>
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<tr>
<td>44. Luini</td>
<td>&quot;</td>
<td>[Italian Renaissance painter]</td>
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<tr>
<td>45. Scarpa</td>
<td>&quot;</td>
<td>[Italian physician]</td>
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<tr>
<td>46. Bonpland</td>
<td>&quot;</td>
<td>[French; Humboldt's assistant]</td>
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<tr>
<td>47. Chiabrera</td>
<td>&quot;</td>
<td>[Italian poet]</td>
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<tr>
<td>48. Carafa</td>
<td>&quot;</td>
<td>[Italian composer]</td>
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<tr>
<td>49. Goldoni</td>
<td>&quot;</td>
<td>[Italian dramatist]</td>
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<tr>
<td>50. Thiers</td>
<td>80</td>
<td>[French statesman and historian]</td>
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<tr>
<td>51. Kant</td>
<td>&quot;</td>
<td>[German philosopher]</td>
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<tr>
<td>52. Maffei</td>
<td>&quot;</td>
<td>[Italian dramatist]</td>
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<tr>
<td>53. Amyot</td>
<td>&quot;</td>
<td>[French bishop and scholar]</td>
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<tr>
<td>54. Villemain</td>
<td>&quot;</td>
<td>[French scholar and critic]</td>
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<tr>
<td>NAME</td>
<td>AGE AT DEATH</td>
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<td>55. Wieland</td>
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<td>56. Littré</td>
<td>&quot;</td>
<td></td>
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<td>57. Anacreon</td>
<td>81</td>
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<td>58. Mercator</td>
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<td>59. Viviani</td>
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<td>60. Buffon</td>
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<td>62. Casti</td>
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<td>63. J. Bernouilli</td>
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<td>64. Pinel</td>
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<td>65. Galileo</td>
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<td>66. Euler</td>
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<td>67. Schlegel</td>
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<td>68. Béranger</td>
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<td>69. Louis XIV</td>
<td>&quot;</td>
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<td>70. Corneille</td>
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<td>71. Cesarotti</td>
<td>&quot;</td>
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<td>72. Rossini</td>
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<td>73. Cardan</td>
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<td>74. Michelet</td>
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<td>75. Boileau</td>
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<td>76. Garibaldi</td>
<td>&quot;</td>
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<td>77. Archimedes</td>
<td>&quot;</td>
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<tr>
<td>78. Paisiello</td>
<td>&quot;</td>
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<tr>
<td>79. St Augustine</td>
<td>&quot;</td>
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<td>80. Tacitus</td>
<td>76</td>
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<tr>
<td>81. B. Disraeli</td>
<td>&quot;</td>
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<tr>
<td>82. Saint Anthony</td>
<td>105</td>
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