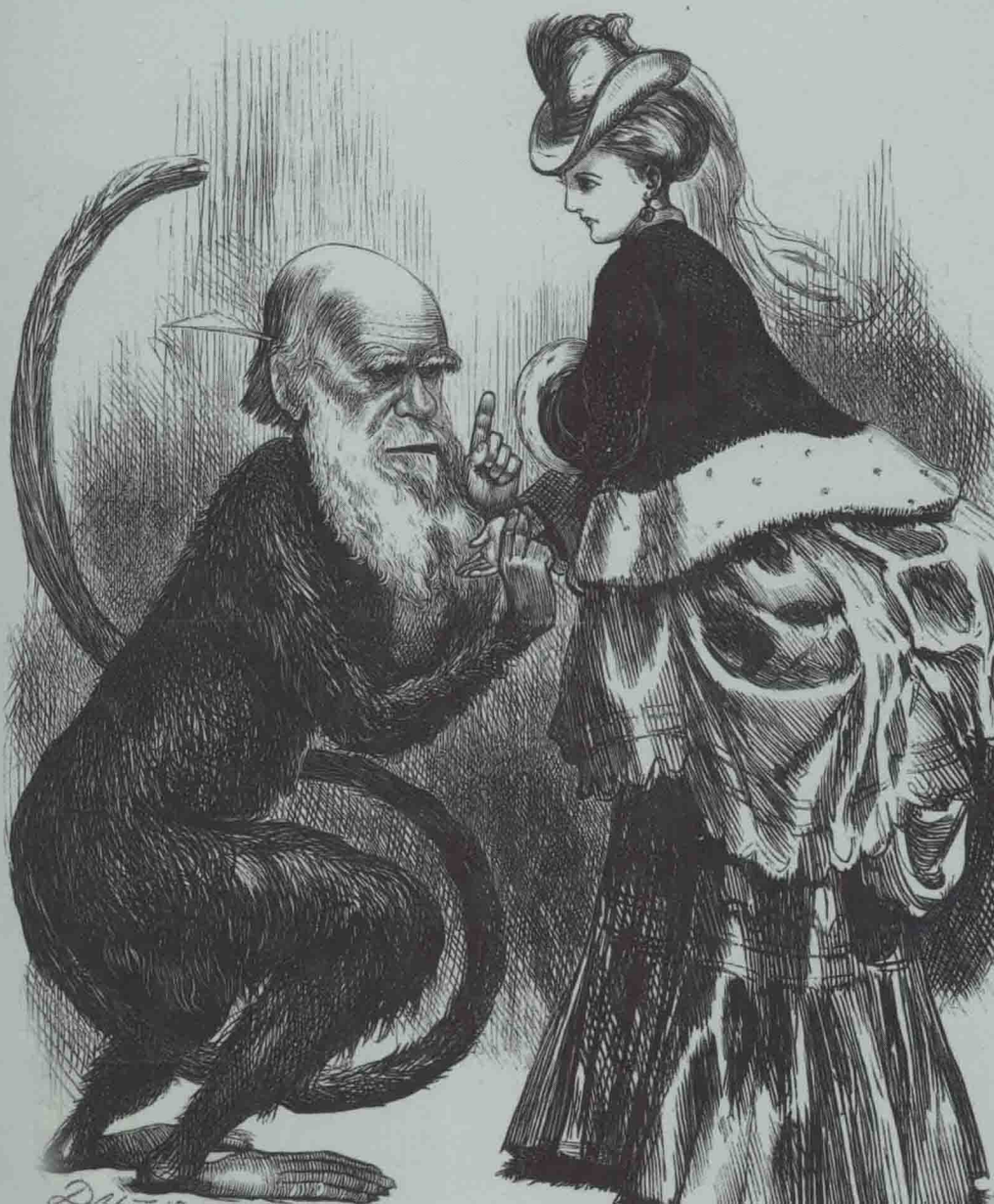


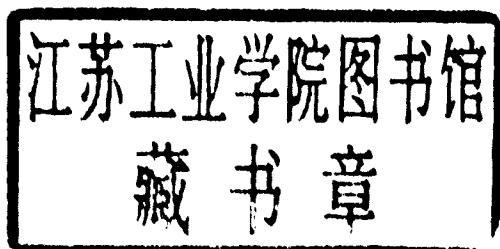
DARWIN, LITERATURE
AND VICTORIAN
RESPECTABILITY

—
GOWAN DAWSON



DARWIN, LITERATURE AND
VICTORIAN
RESPECTABILITY

GOWAN DAWSON



CAMBRIDGE
UNIVERSITY PRESS

CAMBRIDGE UNIVERSITY PRESS
Cambridge, New York, Melbourne, Madrid, Cape Town, Singapore, São Paulo
Cambridge University Press
The Edinburgh Building, Cambridge CB2 2RU, UK
Published in the United States of America by Cambridge University Press, New York

www.cambridge.org
Information on this title: www.cambridge.org/9780521872492

© Gowan Dawson 2007

This publication is in copyright. Subject to statutory exception
and to the provisions of relevant collective licensing agreements,
no reproduction of any part may take place without
the written permission of Cambridge University Press.

First published 2007

Printed in the United Kingdom at the University Press, Cambridge

A catalogue record for this publication is available from the British Library

ISBN 978-0-521-87249-2 hardback

Acknowledgements

Many friends and colleagues have contributed greatly to this book, and I would like to offer my sincere thanks for the support and generosity shown to me during the period I have been researching and writing it. My greatest thanks are to Sally Shuttleworth who, as an exemplary supervisor, supported the project from its very inception, and has continued, throughout its various permutations, to respond to my ideas with both critical acumen and unstinting kindness. I am also extremely grateful to Bernard Lightman and Gregory Radick for reading and commenting on manuscript drafts of various chapters. The book has benefited greatly from the suggestions and comments of Samuel Alberti, Laurel Brake, Daniel Brown, Janet Browne, Geoffrey Cantor, Marysa Demoor, Frank James, Alexandra Karl, Jack Morrell, Lynda Nead, Richard Noakes, Joan Richards, Joanne Shattock, Peter Shillingsburg and Jonathan Topham. At Cambridge University Press, my thanks go to Gillian Beer, Linda Bree and Maartje Schelens, as well as an anonymous referee whose generous and insightful report on the manuscript enabled me to make numerous improvements to the final draft.

Various institutions have played an important role in the book's generation, and I would like to thank the staff of the British Library, City University Library, Leeds University Library, Musée provincial Félicien Rops, Senate House Library, University of Leicester Library and University of Sheffield Library. I am also very grateful to those libraries and archives which allowed me access to unpublished manuscript material in their possession: the Bradlaugh Papers are used by courtesy of the Bishopsgate Institute; the Darwin Manuscript Collection is used with the permission of the Syndics of Cambridge University Library; the Huxley Papers are used by permission of the Archives, Imperial College London; the Tyndall Papers are used by courtesy of the Royal Institution of Great Britain; the Pearson, Robertson and UCL Council Papers are used by courtesy of University College London Library Services. Both the Science in the Nineteenth-Century

Periodical (SciPer) project at the Universities of Leeds and Sheffield and the Department of English at the University of Leicester provided me with extremely supportive and stimulating working environments whilst I was writing the book, and I am particularly grateful to the University of Leicester for granting me a period of study leave which enabled me to prepare the final draft.

A portion of chapter one appeared in *Victorian Poetry* 41 (2003), and earlier versions of parts of chapters two and five have been published in *Unmapped Countries: Biological Visions in Nineteenth-Century Literature and Culture*, ed. by Anne-Julia Zwierlein (London: Anthem Press, 2005), and *Science Serialized: Representations of the Sciences in Nineteenth-Century Periodicals*, ed. by Sally Shuttleworth and Geoffrey Cantor (Cambridge, MA: MIT Press, 2004). Permission to reprint is gratefully acknowledged.

Finally, I thank my family and friends for their support, and not least their patience, during the long time in which this book has gradually taken shape. Helen Wilkinson in particular has given me all the encouragement, love and good counsel that I could ever have expected. Similarly, my parents, Stefanie and Paul, have always offered the unfailing support, both emotional and material, that has enabled me to follow my own particular path, and it is to them that the book is dedicated.

Contents

<i>List of figures</i>	<i>page</i> x
<i>Acknowledgements</i>	xi
1 Introduction: Darwinian science and Victorian respectability	I
2 Charles Darwin, Algernon Charles Swinburne and sexualized responses to evolution	26
3 John Tyndall, Walter Pater and the nineteenth-century revival of paganism	82
4 Darwinism, Victorian freethought and the Obscene Publications Act	116
5 The refashioning of William Kingdon Clifford's posthumous reputation	162
6 T. H. Huxley, Henry Maudsley and the pathologization of aestheticism	190
<i>Notes</i>	222
<i>Bibliography</i>	258
<i>Index</i>	276

Figures

2.1 'A Logical Refutation of Mr. Darwin's Theory', <i>Punch</i> , 1871. By courtesy of the University of Leicester Library.	<i>page 57</i>
2.2 'The Descent of Man', <i>Punch</i> , 1873. By courtesy of the University of Leicester Library.	59
2.3 'The Gorilla', 1861. By permission of the British Library, 010095.g.1.	61
2.4 'Gorille Gina', <i>Archives du Muséum d'histoire naturelle</i> , 1858. By permission of the British Library, (P) CB OO -F(4).	62
2.5 'Monkeyana', <i>Punch</i> , 1861. By courtesy of the University of Leicester Library.	66
2.6 <i>Transformisme n°3 / Troisième darwinique. Le Prédécesseur</i> , c. 1879. By courtesy of the Musée provincial Félicien Rops.	69
2.7 Sainte and the ourang-outang, 1864. By permission of the British Library, P.C.30.c.7.	70
2.8 'That Troubles Our Monkey Again', <i>Fun</i> , 1872. By permission of the British Library, P.P.5273.c.	73

CHAPTER I

Introduction: Darwinian science and Victorian respectability

At a meeting of the Geological Society of London in November 1856, Richard Owen, the foremost comparative anatomist and perhaps the most eminent man of science in mid-Victorian Britain, reached the conclusion of an address on the newly discovered jawbone of an early prehistoric mammal. Turning aside from the structural specifics of the *Stereognathus ooliticus*, he took the opportunity to issue an urgent warning against the irreligious scientific doctrines that had been promulgated in Paris earlier in the century and were now being adopted by a 'small and unfruitful minority' of naturalists in London. Despite their vaunted modernity, these heretical views, Owen insisted, derived originally from the demeaning 'tenets of the Democritic and Lucretian schools' that were formulated in ancient Greece and Rome. Owen was particularly concerned with the potential consequences of such antiquated axioms for nineteenth-century scientific education, and while averring that those 'concerned in the right conception and successful modes of studying organized structures by the Young have little to fear', he nevertheless admonished his audience that the 'insinuation and masked advocacy of the doctrine subversive to a recognition of the Higher Mind . . . call for constant watchfulness and prompt exposure'. Recent exponents of such specious doctrines were, Owen proclaimed, not 'healthy' or 'normal', and, afflicted with 'some, perhaps congenital, defect of mind', they might corrupt the otherwise wholesome minds of others, and the impressionable and conspicuously capitalized 'Young' especially.¹

The principal aim of Owen's address was to condemn the use of empirical deduction rather than functional correlation – which pointed to the existence of an intelligent creator – in palaeontological reconstructions, and he delivered it, as Joseph Dalton Hooker remarked, with 'cool deliberation & emphasis & pointed tone'. Throughout, Owen's glowering gaze was fixed on one particular member of the elite audience at the Geological Society: the headstrong tyro and advocate of deduction Thomas Henry Huxley. In the ensuing debate, Huxley appeared discomfited and, unable to muster

his usual acerbic wit, 'did not defend himself well (though with temper)' against Owen's refutation of his views on palaeontological method.² In the following month, moreover, he went on to express an uncharacteristic desire to foster a 'nobler tone to science' without such 'petty personal controversies'.³ Huxley usually relished his bitter feuds with rival naturalists, and even Owen's strident and authoritative attack on his understanding of palaeontology, in which Huxley actually had little practical experience, seems unlikely to have prompted such a muted response.⁴

What perhaps put Huxley on the back foot in this particular confrontation was the peculiarly moralistic tone of the warning which Owen issued in the peroration to his highly technical palaeontological discourse. After all, he deliberately identified modern scientific approaches like Huxley's which repudiated the role of a higher designing intelligence with the ancient atomistic philosophies of Democritus and Lucretius, who for centuries had been denounced as dangerous pagan sensualists. Owen himself was certainly aware of the strategic potential of such insidious associations with the moral corruption of the ancient world, having earlier condemned his anatomical opponents, in *On the Nature of Limbs* (1849), for sinking into an 'Epicurean slough of despond' from which 'every healthy mind naturally recoils'.⁵ Still worse, in his imperative demands for a 'constant watchfulness and prompt exposure' on behalf of vulnerable youngsters, Owen also invoked a distinctive rhetoric of moral anxiety and furtive surveillance which closely resembled the language of numerous contemporary treatises on the dangers of juvenile masturbation. In the nineteenth century, as Thomas W. Laqueur has noted, 'parents were urged by many a guidebook to exercise the utmost vigilance' in order to 'stop the depredations of the supposedly secret vice'.⁶ Even Owen's characterization of the supporters of Lucretian scientific views as 'unfruitful', and with unhealthy and defective minds, accorded with prevalent nineteenth-century medical assumptions that the unproductive emission of semen would leave those who indulged in masturbation dangerously depleted and potentially infertile. The 'masked advocacy' of subversive and originally pagan scientific doctrines, Owen's strategic rhetoric implied, was the intellectual equivalent of onanism and required a similarly scrupulous vigilance from society's ethical guardians to prevent its iniquitous effects from spreading.

Owen, of course, drew upon a long, well-worn tradition connecting materialism and unbelief with moral corruption and debauchery, including the entwinement of pornography and materialist philosophies in the Enlightenment.⁷ In any case, his particular insinuations at the Geological Society were carefully calculated to remain sufficiently oblique to avoid

contravening the gentlemanly standards of the mid-nineteenth-century scientific community, and they seem only to have temporarily discomfited his most persistent and ferocious adversary.⁸ Significantly, though, the bitter and protracted palaeontological dispute between Owen and Huxley during the mid-1850s is generally regarded as a precursor to the larger controversy prompted by the publication of *On the Origin of Species* at the end of the decade, which Owen savaged in an anonymous notice for the *Edinburgh Review*.⁹ Similarly malevolent and disreputable accusations would become one of the most persistent – if hitherto least acknowledged – aspects of the long-running debates over Charles Darwin's evolutionary theories.

Darwin's particular conception of organic evolution, as many historians have observed, quickly became part of a wider political campaign, which Frank Miller Turner has famously termed 'scientific naturalism', to wrest the last vestiges of intellectual and cultural authority away from the monopolistic Anglican Church establishment, as well as the gentlemanly amateurs who represented its interests in the scientific world.¹⁰ Scientific naturalism instead sought to establish a new secular understanding of both nature and society that could be interpreted correctly only by an emergent cadre of scientific professionals. The metropolitan leaders of this nascent intellectual order, who from 1864 met regularly at meetings of the exclusive and politically influential X-Club, adopted Darwin's competitive, evolutionary view of the natural world, along with the similarly naturalistic principles of the conservation of energy and the uniformity of nature, as a valuable weapon in the wider struggle between Nonconformist Dissenters, with their meritocratic and reformist aspirations, and the established Church, which, through its control of pulpits, schools and universities, remained the chief systematizer of national culture.¹¹

In a society already fissured by the shift from a hierarchical clerical culture to a more socially amorphous urban industrialism, it was essential for scientific naturalism to provide a new secular theodicy which might reconcile the expectations of a growing population with the changed realities of the nascent social order. Rather than being simply discarded, traditional religious values were instead naturalized, with law and uniformity supplanting theology as the guarantors of order in both the natural world and human society.¹² Darwin's theories, as part of this wider agenda of scientific naturalism, had to be urgently sequestered from any hostile associations that might tarnish them in the eyes of the various audiences for science in Victorian Britain and consequently undermine the political aspirations of dissident secular intellectuals, who, as Adrian Desmond and James Moore have put it, were busy 'selling themselves to the public as . . . a respectable white-collar

body'.¹³ The endeavours to dissociate Darwinism from ideologically sensitive epithets such as 'materialism' or 'atheism', and to purge transmutationism of its earlier connotations of scurrilous political radicalism, have, in recent years, received a great deal of historiographic consideration.¹⁴ But, as this book will argue, from the late 1860s attention shifted increasingly from general concerns with political propriety to specific anxieties over sexual respectability, and it was actually Darwin's surprisingly recurrent connection with sexual immorality, in various sectors of the period's burgeoning print culture, which emerged as perhaps the most significant impediment to establishing a naturalistic worldview as a morally acceptable alternative to earlier theological outlooks. These iniquitous associations, moreover, would prove remarkably difficult to shake off.

This aspect of the reception of Darwin's evolutionary theories also reflected wider cultural changes in Britain during the 1860s and 1870s which did much to switch attention from the relatively quiescent political scene to new concerns with sexual and moral transgression. The authority of middle-class norms of respectability, which, shaped by early nineteenth-century evangelicism, had long sought to regulate behaviour in relation to drinking, gambling and sex, was widely perceived to have become markedly weaker in this period, and with regard to the latter in particular.¹⁵ There is, as Michael Mason has argued, 'evidence that the 1860s saw a considerable relaxing of [sexual] codes, especially among young middle class people' which helped establish a 'new environment for sexual reform'.¹⁶ But such changing attitudes towards sex were inevitably accompanied by various anxieties regarding their potentially invidious effects on wider areas of Victorian society and culture. Most notably, the introduction of new legislation on obscenity in the mid-1850s, and the largely adverse critical response to the emergence, during the following decade, of the aesthetic or art for art's sake movement, made the regulation of licentious mass urban culture as well as of studiously amoral avant-garde art and literature matters of urgent public solicitude. In both cases, it was specific concerns with the regulation of representations of sexuality that, more than ever before, were the central issue. As Martin Myrone has recently contended: 'Lord Campbell's [Obscene Publications] Act of 1857 did not simply represent a tightening of the laws regarding obscenity, but a crucial turning-point in which sexuality is isolated as a cause of social disorder, rather than as something to be treated as part of a wider public order issue.'¹⁷ This separation of sexuality from other forms of disorder inevitably increased its visibility as a social problem, and, as in Michel Foucault's famous thesis of regulation as a mode of production, actually prompted exaggerated fears that polite

society was being overwhelmed by an inexorable proliferation of obscene images and other forms of sexual depravity.¹⁸

In the early 1870s the Scottish critic and poet Robert Buchanan certainly expressed an almost hysterical revulsion upon returning from his native Highlands to the 'great Sodom or Gomorrah' of London and finding 'photographs of nude, indecent, and hideous harlots, in every possible attitude that vice can devise, flaunt[ed] from the shop-windows'. The 'female Leg' in particular was unavoidable in the depraved popular culture of the metropolis; 'Walk along the streets,' Buchanan warned, the 'shop-windows teem with Leg. Enter a music-hall – Leg again, and (O tempora! O mores!) the Can-Can.' While those responsible for such 'matter or prints suggestive of indecency' were, according to Buchanan, 'at last being taken in hand' by recent legislation on obscenity and the prosecutions launched by the Society for the Suppression of Vice, even these were not sufficient to cope adequately with the deluge of material of an 'obscene and vulgar nature' with which the 'streets are full'.¹⁹ Nor, significantly, was the high art and literature produced by members of the aesthetic movement immune from similar imputations, for Buchanan explicitly identified the 'Sensualism' expressed in recent avant-garde poetry by Algernon Charles Swinburne and Dante Gabriel Rossetti as the moral 'cancer of all society', and he insisted that 'all the gross and vulgar conceptions of life . . . emanate from this Bohemian class' with its amoral 'critical theory that art is simply the method of getting most sweets out of one's living sensations'.²⁰ It is notable that, according to the *Oxford English Dictionary*, the cultural categories 'aestheticism' and 'pornography' were coined within two years of each other during the mid-1850s, and while Buchanan's derisive comments were characteristically hyperbolic, their sentiments were evidently far from uncommon. Instead, they articulate widespread concerns with the increasing prominence of sex in various aspects of modern culture.

What Peter Bailey has termed the 'sexualisation of everyday life' in the final decades of the nineteenth century can be seen to have had some extremely important consequences for the Victorian disputes over evolution.²¹ Indeed, as this book will show, it was regularly avowed that the growing licentiousness of modern culture, and the alleged excesses of aestheticism especially, actually gave warning of the repulsive direction in which society was being taken by the increasingly influential doctrines of Darwinism. Such lurid accusations were prompted in part by *The Descent of Man*, published at the beginning of 1871, in which Darwin himself identified sexual desire and reproduction as the driving forces of the whole evolutionary process. In the same book, Darwin also contended that man's

moral feelings of right and duty were not innate but had been evolved over time by the natural selection of sympathetic social instincts. It was claimed by his critics that by negating the metaphysical criterion for morality – which, according to many, was the very basis of the civic order – the overtly naturalistic science of Darwin and his inner circle of friends and colleagues threatened to unleash a torrent of immorality and corruption that would surpass the scandalous vices of even the pagan world. These allegations, as will be seen, were generally much more explicit than Owen's rather furtive insinuations concerning paganism in his Geological Society address at the end of 1856.

Several historians have recently challenged stereotypical notions of Victorian prudery and respectability, demonstrating that sexual moralism was not expressed consistently across the nineteenth century nor uniformly adhered to amongst all social groups.²² The many charges made against Darwinian science were nevertheless potentially extremely damaging in the light of the indubitable emphasis on respectability and sexual restraint maintained in specific sectors of society in this period. In particular, the 'primacy of morality', according to Stefan Collini, remained a defining feature of Victorian intellectual life.²³ In order to neutralize the charges of encouraging sexual immorality, the proponents of evolutionary theory, attempting to forge their own naturalistic social theodicy, had to shield Darwinism equally vigorously from any such invidious connections, in part by distinguishing a self-proclaimed 'pure' science – drawing on all senses of that overdetermined adjective – from the less reputable aspects of nineteenth-century general culture.

Like stereotypes of Victorian prudery, the familiar concept of the 'Darwinian Revolution' in the mid-nineteenth century has also increasingly been questioned in recent historical scholarship, which has instead proposed that the simplistic notion of a triumphant epochal shift instigated by a single individual be replaced by a more nuanced emphasis on what James A. Secord has recently termed 'the debates that took place after the publication of a series of printed books'.²⁴ This book explores precisely these debates over works such as *The Descent of Man* and Huxley's *Evidence as to Man's Place in Nature* (1863), but, for the very first time, it examines them in relation to the murky underworlds of Victorian pornography, sexual innuendo, unrespectable freethought and artistic sensualism. In so doing, it sheds important new light even on those evolutionary controversies which have already been the subject of extensive scholarship, and contends that such disreputable and generally overlooked aspects of nineteenth-century culture were actually remarkably central to many of

these debates. The book integrates contextualist approaches to the history of science with recent work in nineteenth-century literary and cultural history, situating the Victorian disputes over Darwin's scientific theories in a wider set of contexts and material cultures, and those emerging from aestheticism and new legal definitions of obscenity in particular. Such an approach extends dramatically the range of participants actively involved in debates over evolution, from pornographic engravers and clandestine authors of freethinking treatises on sexuality to conservative literary critics and the ostensibly demure wives of prominent men of science, as well as the spaces and formats in which such issues were discussed and contested.²⁵ Notably, the book provides extensive new evidence of how even Darwin himself became implicated in the attempts of radical freethinkers to challenge both the legitimacy of the recently passed Obscene Publications Act and conventional taboos over issues like birth control and prostitution.

It also offers, amongst other things, a new way of understanding the relations between science and literature in an intellectual milieu of perpetually disputed boundaries. The frequently problematic interconnection of Darwinian science and aesthetic literature considered in this book suggests that the prevalent 'One Culture' model of literature and science scholarship, which implicitly celebrates discursive interchanges between scientific and literary modes of writing as invariably creative and mutually advantageous, has been much too sanguine in its approach to the interrelations of science and literature in the Victorian period.²⁶ Rather than examining how scientific concepts have informed various aspects of works of literature, or even how science has borrowed different rhetorical structures and tropes from literary forms of writing, the book instead focuses on how the actual interconnection of the two was itself, between the late 1860s and mid-1890s, regularly exploited and manipulated for a variety of strategic reasons. Those seeking to discredit the cultural authority of evolutionary science identified it with the alleged sensual indulgence of aestheticism, while those attempting to establish it as a respectable secular theodicy denied such a connection and instead emphasized links with more reputable literary writers.

Drawing on a broad range of sources including journalism, scientific books and lectures, sermons, radical pamphlets, aesthetic and comic verse, novels, law reports, illustrations and satirical cartoons, as well as less traditional formats such as the gossip and hearsay recorded in private letters, the book reveals the unscrupulous and often extremely effective strategies employed by a variety of different critics, both scientific and otherwise, to undermine Darwinism. While focusing principally on Darwin himself, it also examines how many of his leading allies and followers, including

Huxley, John Tyndall, William Benjamin Carpenter and William Kingdon Clifford, were similarly implicated in disputes over their apparent espousal of immorality, although even long after his death in April 1882 it was Darwin who remained the dominant figure in various controversies concerning science and sexual respectability. Significantly, the book shows that the opposition to various aspects of evolutionary science was often much stronger and more potent than has generally been recognized in accounts that adhere to the model of the so-called 'Darwinian Revolution' rather than emphasize the more complex and considerably less one-sided debates of the period. Darwinian men of science, to take only one example, were constrained significantly by the allegations made by antagonists such as Owen, and often had no choice but to fashion their model of professional scientific authority, as well as their public personas, in accordance with the standards of respectability laid down by their most bitter adversaries. While much recent scholarship has been alert to what James E. Strick has termed the 'intense desire to be "respectable"' of figures like Darwin and Huxley, this book makes clear that the fashioning of such respectability was by no means a straightforward or unproblematic endeavour.²⁷ Maintaining an unsullied personal reputation, vitally important in an age when much of the intellectual credibility of science relied upon the virtuous character of its leading individual exponents, was often an extremely precarious process, even for such an apparent model of scientific propriety as Darwin himself.

THE INDECENCY OF THE PROCESS

Only four months before Owen's insidious remarks at the Geological Society regarding the potentially immoral tendency of scientific doctrines that renounced the role of a divine intelligence, Huxley had responded with mischievous ribaldry to a question from Darwin concerning the peculiar reproductive mechanisms of hermaphrodite jellyfish. In the summer of 1856, Darwin, wrapped up in writing his 'Preliminary Essay' on species and eager to verify the improvement of jellyfish by cross-fertilization, asked ingenuously 'whether the ciliograde acalephes could not take in spermatozoa by the mouth'. Unable to resist, Huxley, a considerably more worldly man and with a taste for scurrilous mordancy, responded that the 'indecentcy of the process is to a certain extent in favour of its probability, nature becoming very *low* in all senses amongst these creatures'.²⁸ Huxley's incisive riposte was particularly striking because, as Lisa Z. Sigel has shown, in Victorian Britain fellatio was considered amongst the most 'offensive'

of 'foreign practices', stretching the 'capacity for open discussion to its limits' even amongst gentlemanly collectors of erotica like Henry Spencer Ashbee.²⁹ Such sexual dissipation, as Huxley's lewd but not necessarily unscientific observation intimated, was actually found much more readily in nature than a corresponding continence. Similar sentiments concerning the intrinsic unseemliness of the natural world were expressed elsewhere in the nineteenth century, with the French historian and sceptic Ernst Renan declaring, in his autobiographical *Souvenirs d'enfance et de jeunesse* (1883), that 'la nature ne tient pas du tout à ce que l'homme soit chaste,' which Matthew Arnold translated as 'Nature cares nothing for chastity.'³⁰ In response, Arnold observed primly that 'few things have ever struck me more than M. Renan's dictum', and he insisted that rather than watching 'with amused indulgence the worship of the great goddess Lubricity, let us stand fast, and say that it is against nature, human nature, and that it is ruin'.³¹ Darwin, on the other hand, appeared to be neither perturbed nor at all shocked by Huxley's vulgar levity.

In fact, Darwin at once relayed his younger colleague's lewd remark to their mutual friend Hooker, evidently considering it a choice epigram to be swapped amongst discerning male friends, before reflecting, in his now legendary and much-quoted ironical synopsis of the impending *On the Origin of Species*, 'What a book a Devil's chaplain might write on the clumsy, wasteful, blundering low & horribly cruel works of nature!'³² This sardonic and permissive attitude towards such profane topics, even when expressed exclusively in private correspondence, certainly contravened conventional standards of middle-class respectability, which, according to Mike J. Huggins, ensured that the 'contents of mid-Victorian diaries or private letters often seem dictated by rules of propriety and lacking in spontaneity, with few . . . mentions of non-respectable behaviour'.³³ Instead, both Huxley's remark and Darwin's untroubled response accord with the 'convivial fraternalist discourse' and 'tolerant cosmopolitanism' which Hannah and John W. Gay have identified as characteristic of the 'masculine culture' of nineteenth-century science.³⁴

Rebecca Stott has likewise noted how at the time of Darwin's lengthy researches on cirripedia during the 1850s, 'in letters to scientific colleagues he seems to be interested *only* in barnacle sexuality, presenting the barnacle as a figure of sexual comedy' consisting, in one case, of 'nothing but a tremendously long penis coiled up'.³⁵ Inevitably, such bawdy scientific anecdotes were not generally divulged to wives or other female family members, and Darwin's almost obsessive concern with the peculiarities of barnacle sexuality was much less evident in his four volumes of published writings on

cirripedia than in his private letters. Nevertheless, this rather risqué sexualization of the natural world, which would later torment writers like Arnold, was not only the source of the earthy and unashamed ribaldry which frequently characterized Darwin's correspondence with Huxley and others, but was also absolutely integral to his early evolutionary speculations on contentious topics like asexuality, cross-fertilization and the superabundant fecundity that was the main prerequisite of natural selection.

Yet it is one of the oldest axioms of scholarship on Darwin that, in the words of J. W. Burrow, with 'infidelity and materialism . . . generally associated with immorality . . . It was of great importance [to the success of *On the Origin of Species*] that Darwin and Huxley were gentlemen and family men of complete financial, political and sexual respectability.'³⁶ Similarly, Michael Ruse has contended that the "respectability" that evolutionism gained after the *Origin* was in large part due to the respectability of the Darwinians themselves . . . To a man, they were exemplars of the most boring Victorian respectability . . . good family men of impeccable sexual propriety.'³⁷ Writing in the 1960s and 1970s respectively, Burrow and Ruse made no attempt to explain how such sexual respectability was actually achieved, assuming that Darwin's privileged class position and cosy domestic situation were sufficient to account for his apparently exemplary personal reputation, and, still more presumptuously, inferring that supporters like Huxley invariably enjoyed similar social advantages.

More recently, historians have acknowledged that this respectability was not necessarily intrinsic to Darwin and evolutionary science and have examined some of the strategies by which it was achieved, with Strick noting how 'Darwin and his supporters . . . followed . . . [a] respectable model of scientific behaviour' which eschewed the disreputable forms of science, including mesmerism and earlier versions of progressive development, practiced by atheists and medical radicals.³⁸ The issue of spontaneous generation, Strick contends, was a 'particularly explosive one for the status of evolution as respectable science' and was consequently expunged from the scientific agenda of Darwin and his closest colleagues.³⁹ Adrian Desmond has similarly made it clear that a 'crucial need for quiet respectability dominated Darwin's life' and necessitated his careful avoidance of any connection with scientific or political radicalism.⁴⁰ The explanation for the famously long delay before the eventual publication of the *Origin*, Desmond suggests, was simply that 'Darwin was frightened for his respectability' during the incendiary period of the 1840s.⁴¹

While it has done much to advance our understanding of the nineteenth-century debates over evolution, this emphasis on the contingent nature