



Darwin's Troubled Legacy  
Professor Jim Endersby

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As we saw in an earlier lecture, Darwin said almost nothing about human evolution in the *Origin of Species* (1859); just the single sentence “light will be thrown on the origin of man and his history”. In a private letter to the young naturalist, Alfred Russel Wallace, written two years before the *Origin* appeared, Darwin commented “You ask whether I shall discuss ‘man’; I think I shall avoid whole subject, as so surrounded with prejudices, though I fully admit that it is the highest & most interesting problem for the naturalist”. Perhaps concerned about those “prejudices”, Darwin continued to avoid the issue throughout the 1860s. He focussed instead on his plants (publishing on orchids *in* 1862, and on “The movements and habits of climbing plants”, in 1865). His next big book was *The variation of animals and plants under domestication* (1868), packed with the fascinating details he’d gleaned from plant- and animal-breeders, but disappointing to those who were expecting a detailed discussion of human evolution.

Nevertheless, Darwin’s star rose rapidly throughout the 1860s. The *Origin* went through successive editions, and was translated and reviewed all over the world. Darwin was awarded the Royal Society’s prestigious Copley medal (1864), “For his important researches in geology, zoology, and botanical physiology”, but – conspicuously – *not* for his evolutionary theories, which the medal committee felt were still too controversial. Despite the controversy, by 1866 a London newspaper, *The Guardian* reported that at the recent meeting of the British Association for the Advancement of Science (BAAS) in Nottingham, “some form or other of the Darwinian theory was everywhere in the ascendant”. And just two years later (when the BAAS met in Norwich), the same paper reported the “predominance” of Darwinism, observing that “its reign was triumphant and almost unopposed”.

The newspaper’s claims are a useful corrective to the still-prevalent myth that Darwin’s ideas were universally condemned, especially by the churches. The London *Guardian* (not to be confused with the liberal *Manchester Guardian*), had High Church, Tory sympathies, so was hardly likely to exaggerate the progress of evolutionary ideas. And it may also be surprising to learn that Darwin’s botanical work was a vital part of Darwinism’s rapid triumph within the scientific community (of which the BAAS represented a broad sample). The Society’s president in 1868 was the botanist Joseph Hooker, director of the Royal Botanic Gardens, Kew, and a close friend of Darwin’s. Hooker devoted almost a third of his presidential address to the “greatest Botanical discoveries made during the last ten years”, the most important of which “we owe to Mr. Darwin”. As Hooker showed, far from being a distraction, Darwin’s plants were crucial in showing naturalists how to see plants and animals in a wholly new light. Natural selection solved old problems and set exciting new ones for the rising generation to work at (as I tried to illustrate in lecture 3).

However, while Darwin was hard at work in his garden and study, many of his contemporaries were busy trying to apply his theory to human beings. Alfred Russel Wallace, co-discoverer of the principle of natural selection, produced an influential article in 1864 on “The Origin of the Human Races and the Antiquity of Man Deduced from the Theory of Natural Selection” (*Journal of the Anthropological Society of London*, 2, 1864). Thomas Huxley, Darwin’s celebrated (and

pugnacious) defender, who was fresh from his battles over gorillas with Richard Owen (see lecture 2), published *Man's Place in Nature* in 1863, which further developed his argument that humans were unambiguously descended from ape-like creatures. And 1863 also saw Darwin's geological mentor, Charles Lyell, producing a new book on *The Antiquity of Man*, in which he tentatively endorsed Darwin's evolutionary theories. Each of these publications generated further debate, which ensured that by the end of the decade, the scientific world was eagerly waiting for Darwin himself to pronounce on the great question. But when *The Descent of Man* finally appeared – exactly 150 years ago – it was not the book that they had been expecting.

### The Sickening Peacock's Tail

Darwin once admitted that “The sight of a feather in a peacock's tail, whenever I gaze at it, makes me sick!” His nausea was prompted by the fact that his theory of natural selection seemed unable to explain how such an extravagant – but apparently useless – feature could have evolved. As he noted: “the long train of the peacock ... must render them a more easy prey to any prowling tiger-cat than would otherwise be the case”. How could natural selection, which depended on the struggle for *survival*, hope to explain features that not only did nothing to help birds survive, but might even hinder them? Darwin's proposed solution to this puzzle arose from the fact that peacocks, “display their attractions with elaborate care in the presence of the females,” almost always “during the season of love”, adding that “It is incredible that all this display should be purposeless”.

Some of Darwin's fellow-naturalists offered a simple solution to Darwin's problem: God made peacocks beautiful. God's benevolence and love for his creation filled it with beauty – from peacocks to orchids (see lecture 3) – to delight us and demonstrate his love for us. However, Darwin aimed to produce a fully naturalistic explanation of the variety of life on earth. He did not deny the possibility that God existed (indeed, he went out of his way to avoid offending those who believed), but he was convinced that God could play no role in a *scientific* explanation. So he offered an alternative explanation: the peacock's tail must be a sexual ornament. It had evolved because there were random variations in the tails of the peacock's ancestors – and similar random variations among the proto-peahen females' preferences. Perhaps the females were attracted to big tails because they were usually attached to large and vigorous males, or their preference could have been completely arbitrary – the effect would have been the same in either case. The big-tailed males would have mated with the big-tail fancying females, producing a large number of offspring, who would inherit either their father's large tail or their mother's preference for large tails. If the big-tailed males mated early and often enough, it wouldn't matter if prowling tiger cats devoured them before they reached a ripe old age. The rules of sexual selection's game were simple: life fast, die young (if you have to), but leave a good looking body of big-tailed sons, or big-tailed fancying daughters. If Darwin was right, the result would be a kind of runaway selection, which explained the extravagant structure of the modern peacock.

Darwin had first outlined this idea in the *Origin of Species*, which had included a chapter on sexual selection, but sexual selection had been overshadowed by the attention paid to natural selection. When Darwin finally tackled human origins in the *Descent of Man* (1871), his contemporaries were somewhat surprised to discover that while human evolution was supposed to be the book's main subject, it was sexual selection that really dominated. Darwin used combat between males and choice on the part of females to explain structures, such as the peacock's tail, that seemed inexplicable by natural selection. Darwin recognised that any structure (or instinct) that increased an organism's chances of mating – and thus reproducing – would be inherited, and become both more common and more pronounced in successive generations.

Darwin used his theory to make various connections between human and non-human animals. For example, he noted that human breeders could “give beauty, according to his standard of taste” to the birds they kept by selecting those they found most attractive. And “so it appears that in a state of nature female birds, by having long selected the more attractive males, have added to their

beauty". It was the choosy female pea-hens who shaped the peacock's tails, and Darwin admitted that this claim would seem to imply "powers of discrimination and taste on the part of the female which will at first appear extremely improbable", yet he hoped to show "that this is not the case".

Darwin made repeated links between human and animal behaviours, to show that what was true for peacocks would also be true for people. Perhaps the most vivid example is a passage where Darwin seems suddenly to writing a kind of science fiction. If his readers doubted that female birds feel "a preference for particular males", he suggested that they try to place themselves "in imagination" in the bird's position:

*"If an inhabitant of another planet were to behold a number of young rustics at a fair, courting and quarrelling over a pretty girl, like birds at one of their places of assemblage, he would be able to infer that she had the power of choice only by observing the eagerness of the wooers to please her, and to display their finery."*

– the visiting alien would have no way of understanding the 'young rustics' states of mind, being ignorant of their language and culture, but Darwin believed that his imaginary alien would still have concluded that the "pretty girl" being courted was able to choose between her suitors. And so, by analogy, the human naturalist must reach the same conclusion about birds; the male proposes, the female disposes – otherwise all that displaying would be "purposeless".

Reading Darwin's comments on courtship today, it is impossible not to notice that some very Victorian assumptions shaped his understanding of what he saw. In every species, he argued, "it is the males that fight together and sedulously display their charms before the females; and those which are victorious transmit their superiority to their male offspring". All the females can do is choose, because females were (according to Darwin) naturally "coy, and may often be seen endeavouring for a long time to escape from the male. Every one who has attended to the habits of animals will be able to call to mind instances of this kind".

These supposedly natural differences between male and female animals were equally apparent in the human sexes (unsurprisingly, since Darwin used his assumptions about human gender roles as a basis for understanding non-human animals). Nevertheless, Darwin asserted that biological differences between the sexes explained many things about human society:

*"The chief distinction in the intellectual powers of the two sexes is shewn by man attaining to a higher eminence, in whatever he takes up, than woman can attain—whether requiring deep thought, reason, or imagination, or merely the use of the senses and hands. If two lists were made of the most eminent men and women in poetry, painting, sculpture, music,—comprising composition and performance, history, science, and philosophy, with half-a-dozen names under each subject, the two lists would not bear comparison."*

In Darwin's view, this inequality did not result from any sort of social or cultural discrimination, but simply reflected the biological fact that "Man is more courageous, pugnacious, and energetic than woman, and has a more inventive genius". In short, "man has ultimately become superior to woman". (Indeed, he argued that it was lucky that human intelligence was inherited equally from both parents, "otherwise it is probable that man would have become as superior in mental endowment to woman, as the peacock is in ornamental plumage to the peahen".)

As we saw in the first lecture, Darwin lived in the world's first industrialised capitalist economy. Britain was being propelled rapidly into the future by the remorseless engine of competition. As Darwin reckoned up the profits on the railway shares he owned (and enjoyed the wealth his wife Emma had inherited from her industrialist grandfather, Josiah Wedgwood), it seemed indisputable that competition led to progress. The most efficient companies, who made the best products, thrived and dominated, just as the most advanced countries – with Britain in the lead – were spreading their power and influence across the globe. The same pattern of competition leading to

progress was, he believed, apparent in every aspect of life. Males dominated human societies because “Man is the rival of other men; he delights in competition, and this leads to ambition”. Darwin acknowledged that male ambition “passes too easily into selfishness”, which was an “unfortunate birthright” – yet seemed a price worth paying for the wonderful progress he saw all around him. Men were highly competitive, which ensured the strongest and most intelligent rose to power, as captains either of armies or industries. Meanwhile, among women, it was “the powers of intuition, of rapid perception, and perhaps of imitation, are more strongly marked than in man”. This might seem to redress the earlier sexist assumptions (at least very slightly), but Darwin commented that these, characteristically feminine, “faculties are characteristic of the lower races, and therefore of a past and lower state of civilisation”.

Depressingly, the comparison between women and “lower races” was not an unfortunate slip – the whole argument of the *Descent* was built not just on the assumption that women were inferior to men, but also that some varieties of people – races, as Darwin called them – were equally inferior. And in both cases, the inferiority was at root biological. Darwin explained in his book’s introduction that he had three purposes: firstly, to consider whether humans were “descended from some pre-existing form”. Of course, Darwin had no doubts on that score and summarised the kinds of evidence that his friends had been accumulating over the previous decade. In fact, the arguments he offered to show that humans were descended from apes were rather too familiar by 1871 (and some reviews expressed a degree of disappointment as a result). However, Darwin believed his book’s key value was to consider *how* people had evolved. That was its second goal and natural selection was, of course, a key part of the explanation. But sexual selection was even more important, particularly when it came to the *Descent*’s third topic: “the value of the differences between the so-called races of man”. Darwin was concerned not merely to explain how humans had become so varied, but also explain why some of those varieties were – as he and his contemporaries assumed – more advanced than others.

### The Brains Of “Savages”

Modern readers are sometimes taken aback when they notice the subtitle of Darwin’s most famous book, *On the Origin of Species*: “or, the preservation of favoured races in the struggle for existence”. And some of Darwin’s modern fans – eager to defend their hero from accusations of racism – will quickly explain that in Darwin’s day “races” referred to what we would now call varieties of plants or animals. That certainly was one meaning of “race” in Victorian Britain, but it was not the only one. For Darwin, as for the vast majority of his contemporaries, “race” meant a variety of people, usually distinguished from other varieties of people not by the contents of their characters, but by the colour of their skins.

As we saw in the third lecture, Darwin’s botanical books tried to bridge the gap between plants and animals, by ‘exalting’ the plants and celebrating their many unexpected abilities. The *Descent* tackled the much more vexed problem of bridging the gap between humans and the rest of the animal kingdom. Darwin exalted various animals, by showing that they possessed not only intelligence, but the rudiments of qualities such as courage and morality, which had been assumed to be uniquely human. Intelligence was perhaps the most important of these qualities, since Darwin, like most of his contemporaries, believed that the human brain was what made us so different from our closest relatives, the apes. As he commented in the *Descent*, “No one, I presume, doubts that the large size of the brain in man, relatively to his body, in comparison with that of the gorilla or orang, is closely connected with his higher mental powers”. The big human brain explained what Darwin called our “god-like intellect”, endowing people with abilities which, at the time, it was thought no animal possessed, notably language and the ability to make tools. (More recent studies have shown that neither of these is actually unique to humans, or indeed to primates.) The distinctive accomplishments of our species – everything from music, art and architecture to great scientific theories – were all the result of our sheer, intellectual horsepower.

However, the difference between humans and apes was also a problem for Darwin. Such an apparently large gap might imply that an almost miraculous change had occurred. Darwin was horrified when Alfred Russel Wallace, the co-discoverer of natural selection, announced that the human brain was literally miraculous, some form of supernatural or divine intervention was the only possible explanation for its existence. In 1869, Wallace used the pages of the prestigious *Quarterly Review* to ask (in the racist terms that were typical of his times) how natural selection could possibly explain why those he called savages possessed brains that were only slightly “inferior to that of the average members of our learned societies”. How could the “higher moral faculties” or “refined emotion” help the survival of such supposedly primitive people? Since their brains seemed over-powered for their survival needs, Wallace believed that natural selection should “only have endowed the savage with a brain a little superior to that of an ape”. Nor could Wallace understand how sophisticated human speech could have been “useful to the lowest class of savages”. In Wallace’s view, these anomalies were “evidence of a Power which has guided the action of [evolution’s] laws in definite directions and for special ends”. It was time to accept that “an Overruling Intelligence has watched over the action of those laws”, which he and Darwin had discovered. When he wrote to Darwin to forewarn him about what was coming in the *Quarterly*, Darwin responded in horror, “I hope you have not murdered too completely your own & my child”.

Wallace’s suggestion that only divine intervention could explain human intelligence was, for Darwin, just another version of the problem of the peacock’s tail. Because the human brain seemed to extravagantly exceed the requirements of mere survival, it could also be claimed as evidence of divine design. And Darwin addressed the problem Wallace had posed with the same tool he had used previously: sexual selection.

Of course, Darwin argued that natural selection played a key role in explaining human evolution. He pointed out that the lives of our earliest ancestors would (like those of modern hunter gatherers), have posed numerous challenges best solved with brains. The value of early discoveries such as fire proved that the human intellect would have been invaluable to our survival, (so Darwin commented that “I cannot, therefore, understand how it is that Mr. Wallace maintains, that ‘natural selection could only have endowed the savage with a brain a little superior to that of an ape’”). However, sexual selection also played a central role in explaining, for example, how such seemingly uniquely human behaviours as composing music had evolved. After cataloguing the variety of sounds and songs that animals produce, usually as part of their courtship rituals, Darwin then traced – in his typical style – what he saw as a scale of increasing sophistication across a series of ever-more complex organisms, culminating in humans. He concluded that:

*“All these facts with respect to music become to a certain extent intelligible if we may assume that musical tones and rhythm were used by the half-human progenitors of man, during the season of courtship, when animals of all kinds are excited by the strongest passions.”*

And since, poetry “may be considered as the offspring of song”, the whole of literature could be traced to the same root. As a result, when an “impassioned orator, bard, or musician” used their skills to excite “the strongest emotions in his hearers”, he “little suspects that he uses the same means by which, at an extremely remote period, his half-human ancestors aroused each other’s ardent passions, during their mutual courtship and rivalry”. And of course, the fact that Darwin assumed that the orator or musician had been “he” for millions of years explained why his two lists of “the most eminent men and women in poetry, painting, sculpture, music” would “not bear comparison”. The most exalted of human accomplishments were simply the end result of thousands of generations of men showing off to impress women. Human music and art excelled that of apes or birds because of the relentless competition between men to produce the best statue, painting, poem or symphony – to flourish their peacock’s tails.

## Favoured Races

Not only did Darwin use sexual selection to explain the origins of even the most apparently advanced aspects of human culture, he also used it to explain the origins of human races themselves. Human aesthetic preferences varied, just as the pea-hen's ancestors has exhibited varied taste in tails. And Darwin assumed that humanity's ancestors showed similar random variations in their tastes. But, of course, aesthetic preferences do not fossilise (and in fact very few human fossils of any kind had been discovered when he was writing), so Darwin suggested that a study of "the habits of existing semi-civilised and savage nations" was a form of time-travel. The lives of such people were assumed by most anthropologists to provide a glimpse of what our ancestors' lives must have been like.

Darwin noted that Europeans were often repelled by the "hideous ornaments and the equally hideous music admired by most savages", but these differences proved that the aesthetic sense did indeed vary widely.

*"If it can be shewn that the men of different races prefer women having certain characteristics, or conversely that the women prefer certain men, we have then to enquire whether such choice, continued during many generations, would produce any sensible effect on the race."*

After pages of pages of rather sketchy, often anecdotal, evidence, Darwin concluded that sexual selection had indeed produced such changes. That was ultimately why people's appearances and behaviours varied so much across different parts of the world. Racial differences were, for Darwin, just another kind of peacock's tail because most of these dissimilarities seemed to offer no survival benefits. There was some slight evidence to suggest that darker-skinned people were more commonly found in hot countries, perhaps because their colouration gave them some protection from sunburn. But Darwin knew that the Aborigines of Tasmania, whose climate is no hotter than Britain's, had skins as dark as any Africans. And most of the features that Victorian naturalists used to distinguish races lacked even this kind of threadbare explanation. Once again, natural selection seemed to fail – and once again, Darwin used sexual selection to solve the problem.

Darwin argued that in what he called savage cultures, the "strongest and most vigorous men" would use their physical strength and mental acuity to become chiefs. Like most of his fellow white monogamists, Darwin assumed that marriage was an advanced trait and our earlier ancestors would have been polygamous. As a result, their chiefs would have had their pick of the most attractive women. But there was no global standard of attractiveness; the women chosen would have been those who appealed to each chief's idiosyncratic idea of beauty. The chief – being wealthy – would have the resources to successfully raise many more offspring than his less successful competitors, each of whom would (like the peacock's ancestors) inherit their parents' mental and physical characters, including their sense of beauty and whatever physical characters satisfied that taste. If, for example (and Darwin used this precise example) a chief liked women with large buttocks, that would ensure that within his tribe, female buttocks would become ever more pronounced over successive generations – as they seemed to have done among some African peoples. And so, Darwin concluded, "after the lapse of many generations" the chief's taste in women would "modify to a certain extent the character of the tribe".

Despite lots of criticisms, the *Descent* was such a success that Darwin was able to produce a revised second in 1874. Many reviewers (and even some of Darwin's friends and supporters) had struggled to fully understand the complex arguments that Darwin used to connect human evolution with sexual selection. Since the book had originally been two bulky volumes, Wallace suggested that Darwin should split it into two different books: one on sexual selection and one on human evolution. Darwin not only rejected this plan, he combined the two volumes into a single, massive 500-page tome; an unwieldy embodiment of his conviction that sexual selection was the key to

fully understanding human evolution. He introduced the new edition by explaining that he had “endeavoured to profit by the fiery ordeal through which the book has passed”, by responding to “all the criticisms which seem to me sound”, in particular by making corrections and adding new evidence.

One of the ways Darwin responded was to make his second edition a little more racist than the first had been. For example, as noted above, Darwin had acknowledged in the first edition that readers might doubt that females (of any species) possessed the “powers of discrimination and taste” upon which sexual selection relied. (This scepticism, as Erika Milam has shown, lasted well into the twentieth century and shaped a lot of later biologists’ thinking.) Darwin hoped “to shew that the females actually have these powers”. In the second edition he tried to make this claim more plausible:

*“When, however, it is said that the lower animals have a sense of beauty, it must not be supposed that such sense is comparable with that of a cultivated man, with his multiform and complex associated ideas. A more just comparison would be between the taste for the beautiful in animals, and that in the lowest savages, who admire and deck themselves with any brilliant, glittering, or curious object.”*

(Incidentally, that phrase – “lowest savage” – occurs almost twice as often in the second edition as in the first.) As Evelleen Richards has shown, Darwin tried to bridge the gap between humans and the other animals by showing that some varieties of people were scarcely human at all. Those he called the “lowest savages” were even less moral, intelligent, compassionate or discriminating than many animals. And Darwin’s main motivation for this strategy was to undermine Wallace’s argument that the human mind required a supernatural explanation – the smaller the gap between human and animal, the less need for Wallace’s “Overruling Intelligence”.

However, there was more to Darwin’s racism than undermining Wallace’s arguments. Darwin had first encountered people he considered savages when the *Beagle* visited Tierra del Fuego. In the conclusion to the *Descent*, he wrote that the “astonishment which I felt on first seeing a party of Fuegians on a wild and broken shore will never be forgotten by me, for the reflection at once rushed into my mind—such were our ancestors”. His description of them makes it clear that they filled him with visceral dislike and fear:

*“These men were absolutely naked and bedaubed with paint, their long hair was tangled, their mouths frothed with excitement, and their expression was wild, startled, and distrustful. They possessed hardly any arts, and like wild animals lived on what they could catch; they had no government, and were merciless to every one not of their own small tribe. He who has seen a savage in his native land will not feel much shame, if forced to acknowledge that the blood of some more humble creature flows in his veins.”*

And Darwin went on to make it clear that he much prefers to admit that he was descended from some brave baboon than from “a savage who delights to torture his enemies, offers up bloody sacrifices, practises infanticide without remorse, treats his wives like slaves, knows no decency, and is haunted by the grossest superstitions”.

Given Darwin’s response to the Fuegians it is unsurprising – however shocking – to read passages like this in the *Descent*: “At some future period, not very distant as measured by centuries, the civilised races of man will almost certainly exterminate and replace throughout the world the savage races”. Especially shocking since Darwin made it clear that the supposed progress of humanity had resulted from the fact that “civilised nations are everywhere supplanting barbarous nations”.

### Conclusion: Pulling Down Darwin's Statues?

In the first of these lectures, I asked whether perhaps the time had come to pull down Darwin's statues. The endless celebration of dead, white men (at the expense of all other kinds of people) is problematic in itself, but when the dead white man has been expressing the kinds of opinions Darwin did, surely we shouldn't be celebrating him?

However, I want to offer a slightly different conclusion to the series. Darwin was a racist – there is simply no other word to describe him. And because he remains such an important figure to modern science (and particularly because evolution is still the focus of both political and religious opposition), many of Darwin's modern admirers are deeply embarrassed by his racism – and we should be. One response to his views is simply to say that they were 'of their time'; however repellent we find them, we need to accept that Darwin's views were similar to those of most other white people in his day. There is some truth in this view. Most Victorians thought they were superior to those of other races, making it acceptable to colonise their countries. (Just as most accepted that a woman could neither vote nor deny her husband's demands for sex; that small children should be working long hours in factories, coal mines or sweeping chimneys; and that animals could be casually tortured to death to entertain people.) What is often difficult for Darwin's modern admirers to accept is that for Darwin, as for the vast majority of his contemporaries, inequality between races and the sexes was not a conclusion that could be supported or attacked with evidence, but one of the indisputable facts that science had to explain. The idea that such differences were purely cultural or social, and therefore not susceptible to biological explanation, was – almost literally – unthinkable to most people in the nineteenth century (including most women).

However, not every Victorian accepted these assumptions. For example, Wallace – despite sharing many of the common prejudices of his time – expressed far more admiration for indigenous peoples than Darwin did. Wallace once wrote that the "more I see of uncivilized people, the better I think of human nature on the whole, and the essential differences between so-called civilized and savage man seem to disappear". Wallace was also a socialist and as he aged became increasingly committed to women's rights. It is thanks in part to those rare Victorians who rejected typical Victorian values, that the world has – thankfully – come a long way in the last 150 years.

It would be nice to put Darwin himself on the side of the angels, and we can certainly argue that – even if he was more racist than Wallace, he was better than some of his contemporaries. In the 1860s, the leader of Britain's anthropologists, James Hunt, argued that slavery was entirely justified, because people of African-descent were too irredeemably backward to be anything but slaves. Hunt's views may have been extreme, but they were sufficiently similar to those of his fellow men of science to ensure that he was elected to the presidency of London's Anthropological Society. By contrast, Darwin was a passionate, lifelong opponent of slavery, who described its brutality with horror after witnessing its realities in some of the South American countries which the *Beagle* visited. While Darwin was at work on the *Descent*, in 1865, the British Governor of Jamaica, Edward John Eyre, brutally suppressed an uprising of the island's former slaves, killing over 400 of them in the process. Hunt expressed his "intense admiration" for Eyre and joined those who called him a hero, who had prevented a massacre of white people. By contrast, Darwin joined those who campaigned publicly for Eyre to be prosecuted for his vicious excesses. Other examples could be offered, yet a few well-intentioned statements don't erase the harm done by the kinds of claims made in the *Descent*. In any case, I would argue that Darwin's personal beliefs are of little interest to historians; we should be more concerned with what he wrote and its impact on those who read it. It is precisely because Darwin was – and is still – so widely read, and so influential, that we cannot simply ignore the more disturbing aspects of his legacy.



So, my suggestion is that don't pull down Darwin's statues, nor stop reading his books. But perhaps we don't need to put up more statues, nor should be celebrating his supposed genius by focussing only on the ideas we still find useful. It would, I suggest, be better to look at the whole range of his work and its impacts.

The particular statue I used to illustrate this point is the one in London's Natural History Museum (NHM); one of my favourite museums in the world. Of course, I would like to keep it open, keep it free to all visitors, and keep Darwin's statue on display, but I think it's long overdue that institutions like this do a lot more to examine their history. Happily this work is now under way. For example, Miranda Lowe, one of the NHM's scientific curators, recently wrote a paper about the imperial origins of many of the objects in the museum's collections, examining who collected them and how. She and her co-author, argue that those who work in museums must not "close our eyes and ears to the difficult origins of the specimens in our collections".

Nor, of course, should any of us with an interest in science and its history ignore the ultimate sources of the wealth that made it possible to build imperial museums, those vast, luxurious cathedrals of science. In the eighteenth century Britain was not just a slave-trading nation, it was the world's *leading* slave-trading nation. The vast wealth derived from the Atlantic slave trade provided the massive investment that fuelled the industrial revolution that Darwin was so proud of – and which provided him with so many of the insights that shaped his scientific ideas. Darwin made considerable use of the collections at the NHM and at Kew to do his work, and relied on collectors and correspondents from all over the empire for his data. There is a very literal sense that without slavery and the colonial plantation economies that replaced it, Darwin could not have written his books. And Darwin's ideas were often popular with imperialists, who claimed that their successful exploitation of non-European peoples was just an example of the survival of the fittest. So we can't separate Darwin from racism and imperialism, nor should we try. Personally, I would like to see more of the history I've outlined here being presented in museums, made accessible and explained to visitors. A lot of this work is now underway (thanks, in large part, to the actions of Black Lives Matters protestors across the world). The result will not be to impoverish museums, nor to destroy or deny the past. Instead, museums and history books will be enriched by presenting a much more complete picture of the past, in which a wider variety of voices tell a range of stories that we haven't heard before. Listening to those stories will be a first step to ensuring that we learn from the past, and don't just keep reproducing the same old inequalities and injustices.

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### Further Reading

Darwin, Charles *The Descent of Man and Selection in Relation to Sex* (1871). There are lots of different versions in print, but the Penguin Classics version has an introduction by Adrian Desmond and James Moore that I think is especially good. You can find all the editions online at <http://darwin-online.org.uk>

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