



**Making A Monkey Out of Darwin**  
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Darwin was one of the world's first scientific celebrities; thanks to the rapid industrialisation of communications in the nineteenth century, literacy grew rapidly – creating both best-selling books and dizzying range of mass-market periodicals. These new media markets helped to create and sustain controversy around evolutionary ideas, beginning with *The Vestiges of the Natural History of Creation* (1844). When Darwin finally went public with the *Origin of Species* (1859), he knew his book would be read in the light of the expectations that the *Vestiges* had created. And it was; ideas of progress, questions of humanity's place in nature and controversial claims about both religion and science became part of the discussion of the *Origin*. They helped to create the framework within which Darwin's ideas would be read. And the explosion of print ensured that Darwin's bearded face – often perched on a monkey's body – became instantly familiar, a visual symbol, the trademark for a product called "Darwinism" that encapsulated a wide range of ideas. For some, Darwinism was shorthand for a vile attack on traditional morality, while for others it was emblematic of scientific progress, throwing off old superstitions and embracing a more rational future.

The image of an ape-like Darwin is so familiar to most of us that we barely notice it, partly because it has been around so long. From Victorian caricatures to contemporary creationist t-shirts, the links between evolution, apes and Darwin are now so familiar that they seem inevitable. Those connections were made almost as soon as the *Origin* appeared, yet Darwin said almost nothing about apes in his book, the *Origin* contained just one sentence ("light will be thrown on the origin of man and his history") about human evolution. The word "monkey" appeared just three times (with no hint of any connection to humans), and the word "ape" didn't appear at all (nor did the names of any of the species of great ape). Nevertheless, Darwin and the apes became indissolubly linked almost immediately.

Literary scholars sometimes use the term 'intertext' to describe the way texts shape the meanings of other texts. These 'texts' can be written or spoken words, but the term is often extended to include all kinds of images. Anything from which a meaning can 'read' – from a work of art to an advert – can be considered a text and they form a loose web of expectations, preconceptions and ideas which together shape the ways a new text is likely to be interpreted. Because many readers of the *Origin* were already familiar with certain texts, notably the *Vestiges* and the Judaeo-Christian Bible, some readings were more plausible than others. Some communities of readers would be guided towards a particular interpretation (and away from others). Ideas like these can help us understand how and why Darwin and the apes got attached to each other. By looking at some of the texts – literary and visual – that shaped the way Darwin's ideas were interpreted, we can also understand why making a monkey out of Darwin could be curiously comforting (at least to some readers).

The Monkey In The Room

People had, of course, noticed the similarities between themselves and monkeys long before Darwin. To help us understand what happened in the mid-nineteenth century, we need to briefly survey some of the early history of European attitudes towards monkeys and apes. Many cultures

have revered apes as symbols of wisdom (Hinduism has a monkey-god Hanuman, and the ancient Egyptian god of wisdom, Thoth, was often depicted with an ape's head). However, Western cultures have tended to be more ambivalent; both acknowledging our apparent kinship with monkeys and apes, but also expressing discomfort about the resemblance. There was, for example, one very ancient tradition, that used monkeys to symbolise the most bestial and degraded aspects of human behaviour, such as lust and laziness (and since women were often stereotyped with the same moral failings by some male writers, apes and women were also linked). The Roman author Pliny commented in his natural history about apes' ability to mimic humans, which was one reason why humans have sometimes used apes as a mirror in which to see ourselves. (And the perceived imperfections of their imitations allows us to feel smug about our supposed superiority.) Some Christian writers explicitly linked apes to the devil, suggesting he had created them to mock God's more perfect creation, humans.

Before the fifteenth century, when Europeans started travelling more widely, they knew very little about apes, but European knowledge of the wider world expanded slowly over the following centuries, as travellers tales, myths and prejudices were combined, sometimes producing rather garbled accounts. For example, Jacob de Bondt (or Bontius), a Dutch physician and naturalist who lived in the East Indies (*Historiae naturalis et medicae Indiae orientalis*, 1658) reported the belief that apes could speak but refused to do so as to avoid work. He was the first to use the Malay name in print and explained that "*Ourang Outang, quod hominem silvæ significat*" ('which means man of the forest/woods'), 1658.<sup>1</sup> This Dutch borrowing from Malay became a common term (along with 'pongo') for all kinds of apes. It was used in the title of the first detailed scientific description of an ape by the English anatomist, Edward Tyson (an early member of the Royal Society of London). Tyson's book *Orang-outang, sive homo sylvestris, or, The anatomy of a pygmie compared with that of a monkey, an ape, and a man* (1699), which included several detailed plates of the ape's external appearance, as well as its skeletal and muscular anatomy, all of which emphasised (and even exaggerated) its similarity to humans. The ape in question was clearly a juvenile chimpanzee, which had been brought to England alive, but died soon afterward. As Tyson's subtitle made clear, he was uncertain about how to classify his 'pygmy', and made comparisons to help him decide what kind of creature it was.

My interest in Tyson (as with Darwin and the history of evolution more generally) began when I read the essays of the late Stephen Jay Gould, a Harvard professor of both science and its history, whose work inspired me to go back to university (and, ultimately, to do what I'm doing now). Gould argued that Tyson's attempt to understand the creature he was dissecting was shaped by a powerful tradition in Western thought, usually referred to as the Great Chain of Being. Numerous thinkers over many centuries contributed to and promoted the idea that all of nature could be organised into a single chain, a scale of increasing perfection that rose from lowly inorganic matter (minerals and mud) to God at its pinnacle. This was a static sequence, which embodied the idea that creation had a place for everything and everything was in its place. For someone like Tyson, apes could never become human, any more than pebbles could become angels. So when Tyson argued, on the basis of his dissection, that "Our Pygmie is no man, nor yet the common ape; but a sort of animal between both", he was not sketching any kind of evolutionary sequence (even though later evolutionary writers tended to claim him as a heroic forerunner). The new creature filled a gap in the great chain, illustrating the wonderful fullness of God's creation. Ultimately, Tyson concluded, "Our Pygmie has many advantages above the rest of its species, yet I still think it but a sort of ape and a mere brute". Adding that, "as the proverb has it, an ape is an ape, 'tho finely clad".

Just three years after Tyson's description appeared, a Dutch merchant, Willem Bosman described West African apes in his *New and Accurate Description of the Coast of Guinea* (English, 1705;

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<sup>1</sup> However, more recent scholars have found no evidence that the indigenous people actually referred to the apes we now call orangutans (*Pongo, sp.*) by this term, which may have been a regional term for wild or uncivilised humans.

originally *Naauwkeurige Beschryving van de Guinese- Goud-Tand- en Slavekust*, 1702). Bosman repeated the claim his countryman Jacob de Bondt had made about the apes of Indonesia: “Some of the Negroes believe, as an undoubted truth, that these apes can speak, but will not, that they may not be set to work; which they do not very well love”. And Bosman also emphasised that apes were violent, they attacked people and were “a terribly pernicious sort of brutes, which seem to be made only for mischief”. Not only were the apes of Africa and the Far East lumped together under the same name, they were often characterised in the same way – as backward, degraded, violent and immoral.

However, not all Europeans accepted these ideas about apes. For the eighteenth-century, French philosopher Jean-Jacques Rousseau, the orang-utan embodied his ideal of a truly natural man, uncorrupted by society and its luxuries. He argued that many so-called savage peoples had eyesight and hearing that surpassed that of their supposedly civilised counterparts. Perhaps, he speculated, the cultivated and artificial lives of city-dwellers rendered us as feeble as many domesticated animals were in comparison to their wild ancestors – and for exactly the same reasons: “we had only fashioned a steeper path of decline from our natural state; we had bred livestock to satisfy our artificial needs and had thereby made our senses still more dull and our constitutions more frail, so that in modern society we are hardly any longer even animals of a certain degenerate kind, but only pets, or prey, broken in by ourselves – weak, docile, fattened, and fleeced” (*Discourse on the Origin of Inequality*).

In Rousseau’s day, most Europeans believed that the great apes had degenerated from the original human perfection of white, European humanity back through the savage state of non-Europeans to an even more primitive barbarism. By contrast, Rousseau wondered whether the various species of apes were relatives of Europe’s supposedly civilised gentlemen. After surveying various traveller’s tales, Rousseau concluded “our travellers made into beasts, under the names pongos, mandrills, orangutans, the same beings that the ancients, under the names satyrs, fauns, sylvans, made into divinities. Perhaps, after more precise investigations it will be found that they are neither beasts nor gods but men”. He, and a few of his contemporaries (notably the Scottish philosopher James Burnett, Lord Monboddo), speculated that the orang-utan was not only a variety of human, but an unspoilt human; a solitary, peaceful vegetarian, uncontaminated by a social order or even permanent pair-bonds. Despite the fact that he never saw a living great ape, even in captivity, Rousseau read traveller’s tales and imagined a life for the orang-utan that was strikingly close to the discoveries of twentieth-century primatologists.

As with Tyson, some modern commentators read Rousseau as a proto-evolutionist, but this is most implausible. Rousseau argued that there was a firm barrier between humans and animals: “the monkey is not a variety of man: not only because he is deprived of the faculty of speech, but above all because it is certain that his species does not have the faculty of perfecting itself, which is the specific characteristic of the human species”.

Rousseau’s discussion of perfectibility was not about the evolution of humans, but about the unity of the human species. The discovery of apparently backward peoples could only be fitted into this wider claim if all these varieties were capable of being perfected to a common standard. Non-European peoples were only relevant to Rousseau’s political project (criticizing contemporary Europe) if they were demonstrably human, not separate species. As the political philosopher Francis Moran put it, Rousseau “needed an account of human natural history which could explain how oranges-outang might become Europeans (or vice-versa)”.<sup>2</sup>

Having made his case that oranges and pongos were members of the wider human family, Rousseau went on to argue that the civilization of which his contemporaries were so proud represented a fall

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<sup>2</sup> Moran (1995, pp. 656–657).

from our original, solitary peaceful forest existence. The apes, like the supposedly savage and backward indigenous peoples that Europeans encountered on their travels, provided a sharp contrast with the cultivated, white men who investigated them – and for Rousseau, the contrast did not reflect favourably on the Europeans. The less advanced tribes (including the apes) might not enjoy powdered wigs, symphony concerts and croissants, but they were healthier, happier and – above all – *freer* than the purportedly advanced tribes of Europe. And, of course, this argument implied that the indigenous peoples of the Americas, Africa, Asia and Australasia, were not degenerate or decayed Europeans, but might in fact be a little closer to an original perfection. Rousseau's contemporaries mostly mocked him, loudly asserting that the apes were even more bestial than the savages – violent, aggressive, promiscuous carnivores. That image – including its racist connotations – was the most common idea of the ape in the decades before Darwin.

### Gorillas In Our Midst

In the early decades of the nineteenth century the great apes gradually became more familiar to Europeans, and their evident similarity to humans became a source of interest – and anxiety. The concept of the great chain of being inspired Tyson to emphasise the more human qualities of his 'pygmie' because he and most of his contemporaries expected the chain – being God's perfect design for the cosmos – to be unbroken. Apparently large gaps between different organisms, suggested that there were 'missing links' in the chain, another concept that circulated widely long before Darwin, and which would shape the way Darwin's ideas were interpreted. It was not the *Origin*, but the *Vestiges*, that popularised an evolutionary meaning of 'missing link' – and apes were increasingly suggested as one of those links. Creatures like the chimp and orangutan began to be offered as evidence which prompted Britain's leading comparative anatomist, Richard Owen (1804–1892) to take up the cudgels, or rather the scalpel, to disprove evolutionary claims about the great apes.

Owen was keeper of the natural history collections of the British Museum; it was largely through his efforts that London's great Natural History Museum was built to house those ever-expanding collections. He came from a rather humble background, but became a powerful figure in British science through his skilful cultivation of wealthy and respectable patrons. He nailed his colours firmly to the mast of the Britain's conservative, Anglican political and cultural establishment, to whom evolution was a dirty word. Prior to the publication of the *Vestiges*, evolutionary ideas were most associated with the French naturalist, Jean Baptiste Pierre Antoine de Monet, Chevalier de Lamarck (1744–1829), who worked in Paris at the national *Museum d'histoire Naturelle*. A few working-class radicals in Britain seized on Lamarck's ideas (as they would later use those of the *Vestiges*) to argue that progress was inevitable; if apes could become people, the poor could be raised up to replace the ruling class. For Owen's elite patrons, evolution became synonymous with dangerous French notions: the destruction of religion and public morality – and the execution of divinely appointed monarchs.

It was therefore incumbent on Owen to prove that there were no apes in the family tree of any Anglican gentlemen; his patrons expected it. However, this was a rather uncomfortable task for Owen, who is sometimes caricatured by modern historians as a diehard reactionary. In reality, he was an advanced scientific thinker, fascinated with the latest German ideas about natural history. As Owen applied recent theories to finding order amid fascination with the complex patterns of similarity that seemed to emerge amid the various branches of the animal kingdom, he found it perfectly plausible that some form of evolution – one that would have to be divinely guided – might explain nature's patterns. Nevertheless, mindful of the need to cultivate widespread establishment support for his grand new natural history museum, Owen worked to debunk the then-existing theories of evolution. He started dissecting apes, many provided by London Zoo (sadly, European ignorance of the apes meant it was very difficult to keep them alive in London's cold, damp and smoke-polluted climate).

The public were fascinated by apes, which allowed Owen to give many popular, public lectures on their anatomy. He rapidly established himself as one of Europe's foremost experts on ape anatomy, arguing with the other experts over whether chimps or gorillas were more similar to humans (Owen argued it was the gorilla). Owen's contributions to these debates invariably included attacks on the Lamarckian hypothesis of transmutation and the progressive development theory put forward in the *Vestiges*. In 1855, Owen concluded one of his papers by asserting that nine-tenths of the differences which distinguished "the great chimpanzee [the gorilla] from the human species, must stand in contravention of the hypothesis of transmutation and progressive development" ("On the Anthropoid Apes, and their Relations to Man", *Proceedings of the Royal Institution*).<sup>3</sup>

Although Owen made use of many different characteristics of apes and people to make his case, he eventually focussed on the skull and brain as the most important. One early paper (1853) concluded that even the "Hottentots [i.e. the Khoikhoi, or Khoisan, people of Southern Africa] and Papuans of Australia" who he argued "have the smallest cranial capacity among the human races" still had double the brain of a gorilla; clear evidence of a vital difference between those he regarded as the highest apes and lowest humans. In addition to comparing brain sizes, Owen started to use the details of the brain's anatomy to separate humans and apes. He grouped all mammals into various sub-classes, according to the types of brain they each had, with the class of *Archencephala* ("ruler brains") containing just one species: *Homo sapiens*. Owen argued that only human brains contained an organ he called the hippocampus minor, one of the main diagnostic features he used to define the group.

Owen published a lengthy series of papers in which he developed this classification, which placed humans firmly apart from the other apes. These culminated in: *On the classification and geographical distribution of the Mammalia... to which is added an appendix 'On The Gorilla'*, a public lecture delivered in Cambridge, May 10, 1859, and published under the same title shortly afterwards. Standing in the heart of Britain's Anglican establishment, Owen concluded his lecture by asserting that the unique human posture, hand and brain were the means by "man":

*"fulfils his destiny as the master of this earth, and of the lower Creation. Such are the dominating powers with which we, and we alone, are gifted! I say gifted, for the surpassing organisation was no work of ours. It is He that hath made us; not we ourselves."*

However, Owen's assertions and his expertise were increasingly being challenged by Thomas Henry Huxley (1825–1895), a much younger man who had once relied on Owen as a patron, but become increasingly frustrated by the Anglican establishment's control over scientific careers. Huxley, who was to become one of Darwin's most passionate (and pugnacious) supporters, argued that merit alone should lead to well-paid institutional posts and pressed his case by attacking Owen's arguments about apes. Huxley promoted his hippocampus views in the newly founded *Natural History Review*, while Owen used the older, more conventional journals, in an effort to keep the debate within acknowledged scientific circles. Yet, despite Owen's caution, the dispute was picked up in the general press, including the *Athenaeum*. On 18 May 1861, *Punch* published a celebrated cartoon of a gorilla, holding a sign that asked "Am I man and a brother"? echoing the famous anti-slavery slogan. (Many readers would have understood the reference to the Darwin-Wedgwood family's well-known opposition to slavery.) The cartoon was accompanied by a poem, "Monkeyana" that referred explicitly to the ape anatomy debate:

*Then HUXLEY and OWEN,  
With rivalry glowing,  
With pen and ink rush to the scratch;*

<sup>3</sup> Quoted in: Kjærsgaard, 2011, p. 90.

*'Tis Brain versus Brain,  
 Till one of them's slain,  
 By JOVE! it will be a good match!  
 Says OWEN, you can see  
 The brain of Chimpanzee  
 Is always exceedingly small,  
 With the hindermost "horn"  
 Of extremity shorn,  
 And no "Hippocampus" at all.*

### Made In The Ape's Image?

Thanks in part to Owen and Huxley, by the time Darwin published *On the Origin of Species* (1859), it was inevitable that – despite his careful efforts to dodge the question – his book would be read in the light of the human/ape debates. In the decade immediately before Darwin published, the long history of speculations enquiries into apes had been brought into a sharp evolutionary focus, first by the *Vestiges* (as *Punch* noted in *Monkeyana*, “The *Vestiges* taught, That all came from naught, By “development,” so called, “progressive”). The Owen/Huxley debates reinforced the connection. And within a year of Darwin’s book appearing, any faint hopes he might have entertained of keeping the apes out of the discussion were squashed by Paul Belloni du Chaillu (1831?–1903), a French-American traveller and author who had recently returned from three years in the still largely unknown interior of West Africa. Du Chaillu published *Explorations and Adventures in Equatorial Africa* (1861) which included vivid tales of wild gorillas, which emphasised their size and ferocity. At a time when almost no non-Africans had ever seen a live gorilla, du Chaillu’s account created a gorilla sensation. With Owen’s support and encouragement, du Chaillu came to London to lecture on his travels, and his collection of skins and skeletons became part of the collections Owen oversaw at the British Museum. Du Chaillu was also mentioned in “*Monkeyana*”, and the media attention helped his book to sell over 10,000 copies in the UK in its first two years – making it a major best-seller. Despite criticisms of du Chaillu’s accuracy (and of his honesty), his narrative established the image of the gorilla for many decades to come.

The pages of *Punch* provide numerous examples of the Gorilla sensation. In the hands of the magazine’s writers and illustrators, these enthralling animals were adapted to all kinds of comic and satirical purpose, but I want to emphasise their use to satirise members of supposedly inferior races. For example, anti-Irish racism is obvious when an Irish revolutionary was caricatured as Mr G’Orilla, implying that he too was a backward and savage creature. And du Chaillu’s book – like almost every other European traveller’s tale from the period – included offensive descriptions of Africans, who were frequently depicted as childlike, stupid, lazy, savage, backward cannibals. Du Chaillu depicted gorillas and Africans in strikingly similar ways, a reminder that the question of humanity’s relationship to the apes was always deeply entangled with that of the relationship between the diverse varieties of human being.

In the decade following the publication of the *Origin* the racial connotations of evolution became ever clearer, because of two bitter struggles: the young United States of America was torn apart by civil war, which became in large part a conflict over the future of slavery; while London saw a heated clash between two rival scientific societies, the Ethnological and Anthropological societies, each of whom claimed a monopoly on understanding human nature. The Ethnologicals, many of who were evangelical Christians, argued that humans were a single species, descended from Adam and Eve and thus all capable of being civilised and saved; they studied human languages, cultures and beliefs to find evidence that we were indeed all brothers under the skin. Their rivals, the Anthropologicals, were more interested in measuring bodies, particularly skulls, in order to prove that differences in skull size proved the existence of large and permanent divisions between different human races. (The connections to the debates around gorillas were explicit; the first object to grace

Anthropological Society's museum was a "nearly perfect" gorilla skin.) The anthropological approach was pioneered by men like the Philadelphia physician, Samuel George Morton, who amassed a huge collection of human skulls in his efforts to prove that native Americans and Africans were permanently distinct sub-species. Such ideas were sometimes used to justify slavery and as a result, the skull-measuring approach to study human difference was occasionally known in London as 'Confederate Anthropology'. Conflicts over slavery and the evolutionary relationships between various human groups were another crucial strand of the context within which Darwin would be read.

Twenty years before the *Origin* had appeared, Darwin had jotted down in one of his notebooks (*Notebook M*, which dealt with metaphysics and morals, 1838), the fact that Plato had argued in his dialogue *Phaedo* "that our 'necessary ideas' arise from the pre-existence of the soul, are not derivable from experience", to which Darwin had added the comment "read monkeys for pre-existence". Humanity's links to the apes were clearly an issue, but one he chose not to mention in print for another three decades. By the time the *Descent of Man* appeared (1871), the debates had moved on substantially and the evolutionary case had been made particularly forcefully by Thomas Huxley in *Man's Place in Nature* (1863). The same year saw Darwin's former mentor, Sir Charles Lyell, publish *The geological evidences of the antiquity of man with remarks on the origin of species by variation*, which cautiously accepted the likelihood that humans had evolved from apes (although Lyell was still not quite ready to "Go the whole orang").<sup>4</sup> The idea of evolution by natural selection had been met with increasing acceptance within Britain's scientific community; one factor that gave Darwin the confidence to explore the idea of human evolution more fully.

However, in addition to scientific discussions of ape anatomy and evidence of fossil humans, the heated debates over race – and the supposed superiority of one human group over another – played a key role in shaping the ways Darwin's works would be read. Nor did Darwin himself shy away from discussing these questions in the *Descent*; he made it clear that some races were more advanced than others and the progress of humanity would sometimes depend on superior races 'vanquishing' inferior ones in the struggle for existence. Despite Darwin's well-known opposition to slavery, he shared the racist assumptions of most of his contemporaries.

## Conclusion

I will return to Darwin's views on race, and their legacy, in my final lecture. However, I want to conclude this one by discussing Charles Kingsley's children's book *The Water Babies*, which illustrates a rather unexpected aspect of evolution's impact.

In Kingsley's book, the narrator asserted that, if water babies really existed, one would have been caught, put in spirits, and perhaps "cut in half...and sent one to Professor Owen and one to Professor Huxley, to see what they would each say about it". Kingsley was a keen naturalist, and assumed his readers would know enough about the details of the Owen-Huxley debate to understand his jokes about a character in the book called Professor Pththmlnsprts ('Put them all in spirits', i.e. preserve specimens in alcohol). The learned professor (a caricature of Huxley) had argued that apes humans have "hippopotamus majors" in their brains, "just as men have":

*"Which was a shocking thing to say; for, if it were so, what would become of the faith, hope, and charity of immortal millions? You may think that there are other more important differences between you and an ape, such as being able to speak, and make machines, and know right from wrong, and say your prayers, and other little matters of that kind; but*

<sup>4</sup> See letters from Charles Lyell to T. H. Huxley (17 June 1859. Darwin Correspondence Project, "Letter no. 2469A", <https://www.darwinproject.ac.uk/letter/DCP-LETT-2469A.xml>) and from Charles Lyell to Charles Darwin (15 March 1863. Darwin Correspondence Project, "Letter no. 4041", <https://www.darwinproject.ac.uk/letter/DCP-LETT-4041.xml>)



For Victorian readers, the word ‘console’ would have evoked the phrase ‘the consolations of religion’. Such consolation was most often needed when facing the all-too-common fact of infant mortality. Such apparently senseless suffering perplexed many Victorians, whose children were twenty-five times more likely to die in infancy than British children are today. Even wealthy people like the Darwins lost three. If nothing happened except through God’s will, he was responsible for every child’s death, and some Victorians found it impossible to believe in such a god.

The idea that continuous progress for humanity was a law of nature offered the *Origin’s* readers an alternative form of faith: famine and death surround us; your child may be dead, your business may be bankrupt, your nation extirpated, but the progress of the human species is assured. If humans were no more than advanced apes, traditional Christianity seemed untenable (recall Darwin’s private comment “read monkeys for pre-existence” of the soul). However, for some Victorians, a faith in inevitable progress – including the progress from ape, to African to civilised white European – was appealing precisely because it was *not* orthodox Christianity. The monkey theory underpinned a form of belief that could appeal to those who found it hard to accept the literal truth of the Bible or to maintain a belief in a personal God. That was, perhaps, the most unexpected result of the ‘monkey theory’.

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### Suggestions for Further Reading

Browne, Janet (2001). “Darwin in Caricature: A Study in the Popularisation and Dissemination of Evolution” (*Proceedings of the American Philosophical Society* 145(4): 496-509).

Ellingson, Ter (2001). *The Myth of the Noble Savage* (University of California Press).

Endersby, Jim (2009). Editor’s introduction. To Charles Darwin *On the Origin of Species by Means of Natural Selection* (Cambridge, Cambridge University Press: xi–lxv).

Gould, Stephen Jay (1985) “To show an Ape” in *The Flamingo’s Smile: Reflections in Natural History*, pp.263–280 (Penguin Books)

Kjærgaard, Peter (2011). “‘Hurrah for the missing link!’: a history of apes, ancestors and a crucial piece of evidence”. (*Notes and Records of the Royal Society of London* 65(1): 83-98).

Moran, Francis (1995). “Of Pongos and Men: ‘Orangs-Outang’ in Rousseau’s *Discourse on Inequality*”. (*The Review of Politics* 57(4): 641-664).

Rousseau, Jean Jacques (1755) “Discourse on the Origin of Inequality”, in *Rousseau: the Basic Political Writings*, edited by Donald A. Cress and David Wootton (Hackett Publishing Company, 2012).

Rupke, Nicolas (1994). *Richard Owen: Victorian Naturalist* (New Haven, Yale University Press).  
Sorenson, John *Ape* (Reaktion Books, London: 2009)

Wokler, Robert (1978). “Perfectible Apes in Decadent Cultures: Rousseau’s Anthropology Revisited” (*Daedalus* 107(3): 107–134).