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**“As Man Advances in Civilisation...”:
Darwin on the Expanding Circle of Moral Regard,
from His Day to Ours**

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Abstract

Charles Darwin’s *Descent of Man* (1871) includes a famous passage on moral progress as due to human reason continuously expanding the range of beings to whom – and, eventually, to which – human sympathies extend. This chapter tracks the fortunes of this passage across the last century and a half of public Darwinism, dwelling in particular on three instances: first, its debut in Darwin’s *Descent*; second, its return in the 1950 UNESCO Statement on the “Race Question,” as the sole quotation from a scientific author; third, its return again in the evolutionary psychologist Steven Pinker’s 2011 bestseller *The Better Angels of Our Nature*, as an epigraph to the concluding chapter. Against any impression that this lineage might convey of a consensus stably enduring from Darwin’s day to ours, I aim to show on the contrary that beneath the surface continuity is a remarkable discontinuity, located in the years around 1900. Once we recognize this discontinuity, we can better understand how Darwinian theory came to be used in the twentieth century first to underwrite the concept of human rights biologically and then to undermine that concept.

Keywords

Charles Darwin; race hierarchy; saltationism; scientific anti-racism; UNESCO race statement; Peter Singer

Introduction

When it came to Charles Darwin's biological ideas, the French historian of science Jean Gayon deployed immense and often ingenious scholarship to keep Darwin on the right side of history. But when it came to the social and political legacies of those ideas, Gayon let Darwin be disappointing. Consider, for example, a passage in *Knowledge of Life Today* (2019) – an extraordinary dialogue between Gayon and Victor Petit, ranging over the whole of Gayon's oeuvre and concerns – about the various agreements and disagreements between Darwin and his famous “co-discover” of evolution by natural selection, Alfred Russel Wallace. At one point Gayon observes that, by the 1890s, Wallace's socialism and spiritualism had combined to lead him to diverge from Darwin on the biological significance of what Gayon called “the conflicts triggered by European colonial expansion.” According to Gayon, whereas Wallace interpreted those conflicts as showing “that the inferiority of colonized peoples was a result of their technology and social organization,” and so “reject[ed] the notion of natural superiority,” Darwin never rejected that notion, instead taking European victories in those conflicts to be victories of the biologically superior over the biologically inferior.¹

In honouring Gayon's unflinching treatment of such matters I offer here a small contribution on Darwinism's persistently plural political lives. One aim in what follows is to show how, in the course of the twentieth century, Darwin's own vision of competitive, progressive nature, encapsulated in his theory of natural selection, came first to *underwrite* human rights biologically and then to *undermine* those rights. We shall see that the underwriting was the work of the population geneticist Theodosius Dobzhansky and the anthropologist Ashley Montagu, in a 1947 paper on “educability” as our species' defining character, thanks to selection for it in the hominid lineage from which we descend. To

Dobzhansky and Montagu, educability is our survival skill par excellence, and also what ensured that, as human groups spread around world, they developed diverse cultures, associated with diverse kinds and levels of civilization. Dobzhansky and Montagu drew an anti-racist conclusion: differences in technological advance reflect not underlying biological inequality but the vagaries of history to which educable equals became susceptible. As for the underwriting's subsequent undermining, it took place a quarter of a century later, in the work of the philosopher Peter Singer. Singer's battle was not against racism but – to use a term that he popularized – speciesism. By Singer's lights, there is nothing metaphysically magical about whatever separates *Homo sapiens* from non-human organisms, such that all humans, as humans, enjoy a privileged moral regard denied to other intelligent, pain-and-pleasure-experiencing beings. Such a notion belongs, Singer reckoned, to the era of Descartes, not Darwin.

Singer's moral philosophy drew upon a particular reading of humankind's moral history: over the long run, our evolved capacities for reason and for sympathy have interacted to expand the circle of beings considered worthy of moral regard. The “expanding circle” is Singer's enduring name for this idea. But the idea and indeed the imagery, down to human morality's expanding to encompass non-human animals, go back to Darwin's *The Descent of Man, and Selection in Relation to Sex* (1871). In the third chapter, on the evolution of the human moral sense, Darwin wrote:

As man advances in civilisation, and small tribes are united into larger communities, the simplest reason would tell each individual that he ought to extend his social instincts and sympathies to all the members of the same nation, though personally unknown to him. This point being once reached, there is only an artificial barrier to prevent his sympathies extending to the men of all nations and races. If, indeed, such

men are separated from him by great differences in appearance or habits, experience unfortunately shows us how long it is before we look at them as our fellow-creatures. Sympathy beyond the confines of man, that is humanity to the lower animals, seems to be one of the latest moral acquisitions. It is apparently unfelt by savages, except towards their pets. How little the old Romans knew of it is shown by their abhorrent gladiatorial exhibitions. The very idea of humanity, as far as I could observe, was new to most of the Gauchos of the Pampas. This virtue, one of the noblest of which man is endowed, seems to arise incidentally from our sympathies becoming more tender and more widely diffused, until they are extended to all sentient beings. As soon as this virtue is honoured and practised by some few men, it spreads through instruction and example to the young, and eventually through public opinion.²

Fascinating in its own right, this passage went on to have an intriguing cultural afterlife. A shortened version appeared in the famous UNESCO statement on race drafted by Montagu just a few years after the publication of the paper with Dobzhansky – the only quotation in the statement aside from a line from Confucius. More recently, the same version served as the epigraph to the closing chapter of *The Better Angels of our Nature* (2011), the evolutionary psychologist Steven Pinker's blockbuster on the growth of the institutions that, Pinker argues, have gradually diminished the probability of any of us being killed by a fellow human.

That textual succession, from the *Descent of Man* to the UNESCO race statement to *Better Angels*, might convey an impression that there has been a kind of enduring consensus among clear-thinking, good-hearted Darwinians about the expanding circle and what it means. Another aim in the below is to suggest that hidden beneath this surface continuity is a remarkable discontinuity. The break happened in the years around 1900. On the nineteenth-

century side of the break we find what we would now consider a racist understanding of the expanding circle, in which every reaching out is also a reaching down. By contrast, on the twentieth-century side we get a non-racist understanding, fit for underwriting the concept of human rights but also vulnerable to attack as speciesist.

The *Descent of Man* passage in Darwinian context

We begin in the nineteenth century, and that era's conviction that there exists a biological and civilizational scale, topped by white Europeans and descending by degrees to what Darwin and his contemporaries called the most "savage" humans – in Africa, the Hottentots; in South America, the Fuegians; in Australia, the aboriginal peoples. This conviction predated Darwin, of course. But, as Gayon rightly noted, far from repudiating it, Darwin strengthened it, drawing on evidence from colonial encounters interpreted through the lens of his theory of natural selection.

Consider Darwin's response when, on the eve of the publication of *On the Origin of Species*, he received the first of what would be many challenges on human evolution. It came in correspondence with his geologist mentor Sir Charles Lyell, who had read the *Origin* in proof throughout the summer of 1859. Reassuringly encouraging as he was, the creationist Lyell nevertheless pressed the case for doubt on several points, including what Lyell judged to be an implication of the theory: that natural selection alone, with no supernatural additions, served to advance intelligence up from pre-human primitive to the level of human reasoners at their far-reaching best. Could natural causes by themselves really fill an intelligence gap equivalent to that now stretching between, say, a lungfish and a Lyell? In reply, Darwin urged Lyell to extrapolate from two observations about intelligence among humans nowadays that Lyell could scarcely deny. First, we see individual, hence selectable, variation in

intelligence (with – it went without saying for Darwin – at least some of that variation being inheritable). Second, we see that greater intelligence is an advantage in the competitive struggle for life. Put those together, Darwin concludes, and we get exactly that process of continual improvement of species intellect “now going on with the races of man; the less intellectual races being exterminated.”³

That now-distressing terminology recurs in a notorious passage in the *Descent*, in the sixth chapter, devoted to reconstructing our species’ evolutionary family tree. After making his case for the human lineage as originating from Old World simian stock, and so for humans as sharing a common ancestor with Old World simians, Darwin pauses to reflect on what, in his words, “has often been advanced as a grave objection to the belief that man is descended from some lower form”: the lack of intermediate forms between humans at their lowest and apes at their highest.⁴ By this point in the book, Darwin has done a great deal of often ingenious argumentative work to stamp out any sense of an absolute divide between the bodies and minds of even the highest humans and the bodies and minds of non-human animals, while at the same time stamping in the idea of an evolutionarily derived, low-to-high scale, passing from the beastly to the savage to the barbarous to the civilized. In his account of language, for example, in the second chapter (on the “mental powers”), he acknowledges that no species but ours can avail itself of articulate language, in which well-defined sounds express well-defined ideas; that the possession of even the rudiments of articulate language opens up possibilities for thinking and action, individual and collective, from which language-less creatures are shut out; and that the long-ago acquisition of those rudiments did more than anything else, directly and indirectly, to propel our lineage up the scale. Even so, in Darwin’s view, what brought those rudiments into being in the first place was the exercise of an instinct for imitation inherited from the pre-human past. Likewise inherited from that past are bodily patterns of emotional expression which continue to bulk large in human

communication. And yes, non-human animals cannot go where we can intellectually; but their undoubted capacities for dreaming and for elementary problem-solving show how much can happen in minds without language.

Darwin rounds off his discussion with a defense of the existence of the race-and-language scale. It had recently come under attack from Charles S. Wake, an anthropologist in the venerable Bible-upholding tradition which saw the human races not as progressing upwards from primitive beginnings but degenerating downwards from perfect ones, with some races more fallen than others. In evidence, Wake adduced the orderliness of the grammars discovered in the languages of some of the least civilized, most disorderly peoples. These grammars, he argued, could be explained only as vestiges of former highness, contrary to what any evolutionary theory would lead us to expect. Darwin disagreed, countering not, however, with an alternative explanation but with an alternative way of evaluating grammatical highness or lowness. That shift to a more favorable measure of scale position would look unconvincing but for a detailed inventory that Darwin previously provided – seemingly for no reason other than its intrinsic interest – of the many ways in which conceptions developed by naturalists seeking to make sense of species had turned out to be applicable to languages. Naturalists studying species had found it helpful, for example, to distinguish the similarities that are due to descent from a common ancestor (homologies) from the similarities that arose independently in response to similar conditions (analogies); and philologists studying languages had followed suit. Likewise, just as naturalists had identified certain features as rudimentary versions of what had been more elaborate in the past, so had philologists. And so on, with ten parallels in all. Now Darwin revealed these parallels to be the basis for an analogical argument for a further, eleventh parallel, between highness and lowness in species and highness and lowness in languages. To naturalists, Darwin urges, regular, symmetrical orderliness is a mark not of highness but of lowness. If,

in line with all those other parallels, philologists adopt the naturalists' conception, then the languages cited as problematic for the theory of evolution become unproblematic, because they are now in keeping with the general lowliness of their speakers.⁵

The message is clear: we humans differ from each other and from our non-human brethren not in kind but in degree, up and down the scale. At a minimum, wrote Darwin in closing the third chapter, the possibility that the steps in this scale were first ascended as the human lineage evolved from a pre-human ancestor "ought not to be denied, when we daily see their development in every infant; and when we may trace a perfect gradation from the mind of an utter idiot, lower than that of the lowest animals, to the mind of a Newton."⁶

Even so, Darwin recognizes that, even at their closest, humans and non-human animals are far enough apart for some perhaps to wonder why there are not gap-bridging intermediates. Darwin's answer is that natural selection ruthlessly eliminates near competitors, with the result that ever larger character gaps emerge between lineages sprung from common ancestors. Indeed, he goes on, if you think the break between the lowest human and the highest non-human is large now, just wait:

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. At the same time the anthropomorphous apes ... will no doubt be exterminated. The break will then be rendered wider, for it will intervene between man in a more civilised state, as we may hope, than the Caucasian, and some apes as low as a baboon, instead of as at present between the negro or Australian and the gorilla.⁷

Tonally, the passage is as disorienting to the twenty-first-century reader as can be. We are very bothered by extinctions, especially when our actions are responsible for them. Yet Darwin contemplated extinction – including the extinction of his own race – with cool detachment, as part of the natural, inevitable, ultimately progressive evolutionary scheme. We are also very bothered by racism, and Darwin here seems about as ugly a racist as could be. It does not help that he used the term “exterminate,” which we now associate exclusively with the getting rid of vermin, but which Darwin used generally to mean “making extinct.” Variants of the term occur thirty-nine times in the *Origin*, always with this meaning, and never in connection with humans, let alone particular human races, going extinct. But there is no getting around the fact that, in Darwin’s view, although all human races share a common ancestry, none deserve to be enslaved, and even the lowest could be improved, some races were higher than others.⁸ And so, as noted, every reaching out during that great moral expansion was also a reaching down.

It is not in the *Descent* but in Darwin’s next book, *The Expression of the Emotions in Man and Animals* (1872), that the abolitionist cultural politics absorbed in his youth met the evolutionist science of his maturity most creatively and benignly, in the form of “a new argument in favour of the several races being descended from a single parent-stock . . . almost completely human in structure, and to a large extent in mind,” erected on the evidence Darwin collected on emotional expression around the world.⁹ But even there we read at one point that it is only to be expected “that the children of savages should exhibit a stronger tendency to protrude their lips, when sulky, than the children of civilized Europeans; for the essence of savagery seems to consist in the retention of a primordial condition, and this occasionally holds good even with bodily peculiarities.”¹⁰

From race hierarchy to race egalitarianism in the decades around 1900

Vigorously defended by Darwin, the notion that human evolution had left in its wake a hierarchy of human races became a commonplace of evolutionary thinking in the later nineteenth century. Unsurprisingly, the anthropology of the era is full of demeaning generalizations. It was said, for example, that the languages of the lowest races had no truly abstract terms – for “love,” or “pity,” or whatever – because the members of those races lacked the capacity to grasp truly abstract concepts, shorn of connections to the concrete. Even concrete terms in those languages supposedly reflected the evolutionary primitivity of their speakers, on the view that, for any given domain of experience, the language of a higher race was expected to offer a richly differentiated vocabulary, suited to expressing refined perceptions, whereas the language of a lower race would be found to manage with a single, modifiable word.¹¹

Such stinginess about human abilities went along, however, with generosity about animal abilities, as illustrated in probably the most famous evolutionary research project of the early 1890s: the attempt by the amateur American scientist Richard Garner to use the Edison cylinder phonograph to show, in keeping with evolutionist predictions as he understood them, that our highest simian relatives speak a “simian tongue,” different only degree from the lowest languages of the lowest humans. Whatever Darwin himself would have made of Garner’s work, Garner’s contemporaries regarded it as vindicatingly Darwinian. At a lecture that Garner gave to a club in New York City in February 1892, the club’s president introduced him by saying, according to *Scientific American*, “that Darwin’s ‘Descent of Man’ was the most important scientific work since the ‘Principia’ of Newton,

and that Mr. Garner's brilliant researches were well calculated to sustain the views introduced by Darwin." When, later that year, Garner described his upcoming expedition to West Africa, he put the human-racial context front and center:

Granted that I have got to the bottom of monkey talk, my task would be but half accomplished. I will have but forged a single link in the chain. I want another. I propose taking down the speech of the lowest specimens of the human race – the pygmies, the Bushmen . . . the Hottentot cluck and click. If there be family resemblance, structural relationship, between the Rhesus monkey, the chimpanzee, and the lower grades of humanity, there may be correlation of speech, philological kinship, and then – and then – the origin of man's talk might be found.¹²

Plainly, Garner's Darwinian world is not ours. Between Darwin and Dobzhansky, elite Darwinian reasoning about humans and non-human animals underwent a kind of transmutation. Out went the idea that, if humankind evolved by anything like the means set out in the *Origin*, then we will find, as we do, that human races take their places on a graduated, low-to-high scale. In came the idea that Darwinian reasoning, scientifically updated and purged of racial prejudice, comfortably allows for the possibility that all human races are equal in biological endowment, and so are equally far in biological terms from even the highest non-human animals. The result was both a levelling and a distancing, a raising up and a pushing down, since all human races were now regarded as equally far from the nearest non-human animal, which was now a very long way away from anything human.¹³

How to explain this shift? I think three converging developments are especially important. One is the emergence, *within Darwinism*, of what comes to be called "saltationism," i.e., the view that new species emerge not slowly and incrementally but via a

sudden step change. In the later nineteenth century, Darwinian saltationism was associated most strongly with Darwin's London allies Thomas Henry Huxley and Francis Galton. On the human races, Huxley and Galton were as hierarchically minded as Darwin. But in their general reflections on the evolutionary process, they went far, in ways that impressed their contemporaries, in articulating saltationism as an option for self-identifying Darwinians. For Huxley, it was obvious that a small change at the micro-level in animal organization could have ramifying effects which result in a large change at the macro-level, as when – to cite an example he gave – an undramatic alteration in the anatomy of the primate brain enabled the emergence of human speech. For Galton, what data on humans had brought out was how stable human groups are in their overall statistical profiles down the generations, with the same normal distributions reappearing around the same mean values. Natural selection, it seemed to him, served to keep populations adaptively fitted to particular conditions; but significant change in populations came about thanks not to natural selection, but to the spontaneous emergence of “sports” – individuals who, by chance, establish a new, stable norm around which a new mean-shifted generation emerges.¹⁴

The second development was the transfer of that saltationist vision of evolution to the domain of animal minds. Here the central figure was a former student of Huxley's, Conwy Lloyd Morgan. Beginning in the mid-1880s, Morgan began making the case for an evolutionary science of animal minds or “comparative psychology” that took seriously the problem which, in Morgan's view, made any such science virtually impossible: the enormous psychological gap between language-enabled human minds and language-less animal minds. As Morgan saw it, the problem lay only partly in the fact that animals, unlike humans, could give no reports on the contents of their minds, so that all knowledge of animal minds would have to be based on inferences from observed actions. When those actions struck human observers as clever, they would struggle, Morgan reckoned, not to anthropomorphize

illegitimately, attributing reasoning powers where none existed. To Morgan, the worst offender on this score in his day was Darwin's acolyte and anointed successor in "mental evolution," George John Romanes, for whom reason's roots could be found as far down as the higher crustacea. It was to prevent Romanes-style overreaching that Morgan in the 1890s introduced a rule soon after known as "Morgan's canon": thou shalt attribute no more to animal minds than is needed to account for animal behavior. In practice, reason became the attribution of last resort, after the prospects of association learning in all its permutations were exhausted (which, in practice, they never were). The history of post-1900 comparative psychology is the history of a science ever more fully organized around Morgan-style skepticism about how humanlike animal abilities are. Morgan himself went on to give the Darwinian saltationism behind his canon enduring visibility under the heading of a still-influential term, "emergence."¹⁵

As with the circa 1900 professionalizing science of non-human minds, so – to come on now to the third development – with the circa 1900 professionalizing science of human minds: the new saltationism rendered belief in human evolution compatible with the notion of a difference-of-kind gap between all humans and even the highest non-human animals. That was exactly the position adopted by one of Morgan's authorities on language and reason, the Oxford philological and anthropological scholar Friedrich Max Müller. From the 1860s to the 1880s, he attacked Darwin's views (at first implicit) on the origin of language, including the anthropomorphism saturating the evidence marshalled from animals in the *Descent*, while nevertheless claiming to be a wholly naturalistic and even Darwinian thinker. In the late 1880s to the mid-1890s the position got a theoretical and evidentiary update at the hands of the Canadian anthropologist and linguist Horatio Hale in a series of addresses and articles. For Hale, the fossil and artefact record harmonized with the new stasis-punctuated-by-large-leaps saltationism in suggesting that the human capacity for articulate language had evolved

not gradually but suddenly, in a single generation, about 10,000 years ago, when a Cro-Magnon child anatomically capable of speech happened to be born to speechless Neanderthal parents. In Hale's view, such an event, involving quite modest changes in the brain and mouth, was no more to be wondered at than – as documented in the present – the birth to five-fingered human parents of a six-fingered child who went on to have six-fingered children and grandchildren. Hale drew out what seemed to him a corollary of the first importance: since all humans derive from that original, fully human ancestor, all should be presumed to share fully in that original ancestor's capabilities. In that light, it's surely a mistake to rank the races and their languages, as though some were closer to the non-human animals than others. On the contrary, all humans are biologically equal, and as such, all equally distant from non-human animals. The differences between the races reflect different histories, not different biologies.¹⁶

Hale is little remembered nowadays. By contrast, Franz Boas, a German-born anthropologist who corresponded extensively with Hale in the 1890s after Boas began doing fieldwork in Canada, is justly famed as one of the founders of modern anthropology. From the early twentieth century, Columbia University became the base from which Boas trained generations of the anthropologists whose work went on to become synonymous with "cultural relativism." Boas was explicit in rejecting evolutionary race-ranking as bad science, expressing the racial prejudice of the race rankers.¹⁷ Although he was less explicit about it, Boas too seems to have found in the saltationism of Galton and others a theoretical stance which made evolutionary sense of the human biological equality that, from now on, would be the professional anthropologist's starting point. In relation to Darwinian theory, Boas was what we would now call a "critical friend." He was invited in 1909 to take part in Columbia University's celebrations in the Darwin anniversary of that year. His lecture makes for awkward reading, because he doesn't have a lot to say that's friendly towards Darwin. He

thought Darwin got some big things right, of course; but he got some big things wrong, not least in his insistence that some humans were closer to the animals in their bodies and minds than others. Boas thought that that was fundamentally mistaken.¹⁸

A cultural survival from this circa 1900 levelling and distancing is the famous factoid about Eskimo words for snow, which comes from the writings of Boas, notably his pivotal 1911 book, *The Mind of Primitive Man*. Recall that it was a tenet of the evolutionary race rankers that primitive peoples would be primitive in their languages too and they would typically have a one fuzzily semantic word where a more advanced cultures would have lots of different words of precise meaning. Boas's answer to that was that each culture will have fuzzily semantic words for topics of low cultural interest, but also topics of high interest on which we'll find lots of different precisely differentiated words. Snow is of greater interest to the Eskimos, hence they have considerably more words for it than we do. In a similar spirit, Boas argued that abstract words are absent from some languages not because their speakers cannot think abstractly but because, in their cultures, there are no occasions which invite such talking and thinking. He reported once modifying one of the words in the language of a Canadian tribe he was studying in order to make it fully abstract. His interlocutor judged that the word made sense, though he failed to see why anyone would want to use it.¹⁹

Darwinism underwrites human rights: The UNESCO Statement on the "Race Question"

We turn now to natural selection's coming to serve as biological underwriter for human rights, and to the second surfacing of Darwin's *Descent* passage on the expanding circle. As a philosophical idea and a political ideal, human rights – rights held, that is, in virtue of *being*

human, of membership in our species – goes back to the Enlightenment.²⁰ Had the promulgation of human rights begun in earnest in the aftermath of the First World War, under the auspices of the League of Nations, it's not difficult to imagine Boas becoming involved, and thus for human rights to have acquired a scientific warrant hammered out from within his selection-minimizing, race-egalitarian anthropology. Any League of Nations "Statement on Race" would thus have mentioned Darwin's legacies for science and society only to paint them as part of the problem that a better postwar world needed to overcome. Given the revelations about Darwinism's role in energizing the German high command, such a characterization would have struck many as richly deserved.²¹

History, of course, took a different path. As a global cause with legal status, human rights dates not from the First World War but the Second. In 1942 – the year of Boas's death – the Allies pledged themselves to unity as nations "convinced that complete victory over their enemies is essential ... to preserve human rights and justice in their own lands as well as in other lands."²² From 1945, as that conviction took institutional shape in the form of the new United Nations and its subsidiary bodies, notably the United Nations Educational, Scientific and Cultural Organization (UNESCO), implicit anti-racism became explicit. The 1945 UNESCO Constitution states that the recently ended war was "made possible by the denial of the democratic principles of the dignity, equality and mutual respect of men, and by the propagation, in their place, through ignorance and prejudice, of the doctrine of the inequality of men and races."²³ Article 1 of the 1948 Universal Declaration of Human Rights reads: "All human beings are born free and equal in dignity and rights. They are endowed with reason and conscience and should act towards one another in a spirit of brotherhood." Article 2, clarifying that the entitlement to human rights obtains "without distinction of any kind," cites "race" as the first such irrelevant distinctions.²⁴ And in 1950, UNESCO published its famous statement on the "race question," with a text comprising fifteen

numbered paragraphs and collaboratively written under the leadership of the appointed “rapporteur,” M. F. Ashley Montagu.²⁵

One of Boas’s last PhD students, and like him working across physical and cultural anthropology, the London-born Montagu had recently made a name for himself with his antiracist writings, above all the best-selling *Man’s Most Dangerous Myth: The Fallacy of Race*, published in 1942.²⁶ A reader of that book would have been fully prepared for the UNESCO statement’s demolition of the notion that “race,” in relation to humans, refers to anything more than a population of people who, whatever the trivial physical similarities they share, show the same range of mental capabilities as any of the other populations making up our species. The lengthy paragraph 14 of the UNESCO statement, for example, begins:

The biological fact of race and the myth of “race” should be distinguished. For all practical social purposes “race” is not so much a biological phenomenon as a social myth. The myth “race” has created an enormous amount of human and social damage. In recent years it has taken a heavy toll in human lives and caused untold suffering. It still prevents the normal development of millions of human beings and deprives civilization of the effective co-operation of productive minds. The biological differences between ethnic groups [the term Montagu was urging to replace “race”] should be disregarded from the standpoint of social acceptance and social action. The unity of mankind from both the biological and social viewpoints is the main thing. To recognize this and to act accordingly is the first requirement of modern man.

What followed, however, would have come as a surprise. In *Man’s Most Dangerous Myth*, Darwin had barely come up. But in the UNESCO statement Montagu credited the above to Darwin:

It is but to recognize what a great biologist wrote in 1875 [sic]: “As man advances in civilization, and small tribes are united into large communities, the simplest reason would tell each individual that he ought to extend his social instincts and sympathies to all the members of the same nation, though personally unknown to him. This point being on[c]e reached, there is only an artificial barrier to prevent his sympathies extending to the men of all nations and races.” These are the words of Charles Darwin in *The Descent of Man* (2nd ed., 1875, pp. 187–8). And, indeed, the whole of human history shows that a co-operative spirit is not only natural to men, but more deeply rooted than any self-seeking tendencies. If this were not so we should not see the growth of integration and organization of his communities which the centuries and the millennia plainly exhibit.²⁷

For the politically left-of-center, there was a longstanding tradition, going back to Peter Kropotkin, of picking out the cooperationist elements in the *Descent* for admiration.²⁸ As early as 1942, Montagu allied himself with that tradition; during the first half of the 1950s, he went on to contribute to it, via a series of books including a new edition of Kropotkin’s *Mutual Aid*.²⁹ But like others of his generation, Montagu in the 1940s got the news that Darwinism, and with it the theory of natural selection, had undergone a fundamental transformation. The Darwinism of the Modern Synthesis was not the racist science that Boas had repudiated. Darwinian natural selection theory and Boasian anti-racism could go together, indeed could be reinforcing, as Montagu saw for himself in the course of collaborating with the Columbia population geneticist and Synthesis supremo Theodosius Dobzhansky. In “Natural Selection and the Mental Capacities of Mankind,” published in *Science* in 1947, Dobzhansky and Montagu argued that all living humans share a

capacity for “educability” that must have been selected for among our ancestors.³⁰ What makes our species a special case biologically, they claimed, is not our genetics, which is no different in kind from the genetics of other species, nor is it the evolutionary causes of change to which we are subject, which are the same ones operating universally (chiefly mutation, selection, and drift). What makes us different – and what made us different – is the complex social environment to which we must adapt if we are to survive, no less than we need to adapt to our physical and our biological environments. Since social environments change so rapidly and unpredictably, the ancestral humans that did best were the ones whose genes enabled them, through complex nervous systems, to learn, invent, improvise. “The genetically controlled plasticity of mental traits is, biologically speaking, the most typical and uniquely human characteristic,” they wrote, and on the available evidence had been so from early on in human evolution.³¹

If our ancestral genetic system in the past was subject to variation and selection, is it still? In which case, might it be that, just as selection under different physical environments has led to somatic differentiation (in nose shape, hair form etc.), selection under different social environments has led, or may in future lead, to mental differentiation? Here, Dobzhansky and Montagu gave, for antiracist purposes, a brilliant answer. Although different non-social environments almost certainly favor different somatic traits, different social environments all favor the same thing: greater plasticity. What enables a person to thrive in any social environment “are the qualities of the plastic personality, not a single trait but a general condition, and this is the condition which appears to have been at a premium in practically all human societies.” And in becoming the mentally plastic animal, humans became singularly independent of their physico-biological environments. We regulate them, rather than – as it is for every other species – the other way around.³²

A paper showing that mental equality across the human races was the most probable outcome of natural selection was a paper to be proud of. Both men were. “If squalls come,” Dobzhansky wrote to Montagu a few weeks after publication, “it means that it hit some sensitive spot... But let’s believe in natural selection – if the thing is useful it will be accepted eventually. Confidentially – I believe that it will be; I flatter myself (or fool myself) by believing that this is perhaps the most important single idea that ever occurred to me. But – natural selection will tell.”³³ Three years later, Montagu, with Dobzhansky’s blessing (he was among those consulted during revision), included a precis in the UNESCO statement, in paragraph 10 (just after the quotation from Confucius: “Men’s nature’s are alike; it is their habits that carry them far apart”). Beneath our different cultures, and the different histories which begat those cultures, lies a single, selection-forged, plasticity-enabling biology:

The scientific material available to us at present does not justify the conclusion that inherited genetic differences are a major factor in producing the differences between the cultures and cultural achievements of different peoples or groups. It does indicate, however, that the history of the cultural experience which each group has undergone is the major factor in explaining such differences. The one trait which above all others has been at a premium in the evolution of men’s mental characters has been educability, plasticity. This is a trait which all human beings possess. It is indeed, a species character of *Homo sapiens*.³⁴

Darwinism undermines human rights – or, from species hierarchy to species egalitarianism in the decades around 2000?

As we have seen, for Darwin, the expansion of the circle of moral regard across the different kinds of human was as much downward as outward, in line with an understanding of racial hierarchy congruent with what he (and many others) took his theory of natural selection to predict. For Montagu, by contrast, the *Descent* passage expressing Darwin's unificatory vision merited quotation precisely because, as Montagu had got to know it in the mid-1940s, the theory of natural selection applied to humans no longer carried any race-hierarchical implications. Thanks to natural selection for mental plasticity, humans everywhere were much the same biologically as humans anywhere, with no races closer to the non-human animals than any others. That conclusion in turn had become possible, I have suggested, because, in the era between Darwin and Montagu, the popularity of saltationist models of evolution had enabled Montagu's teacher (and Dobzhansky's colleague) Boas to show by example how to bring scientific anti-racism together with the most up-to-date evolutionary theorizing and evidence. When, after Boas's death, the rise of the Modern Synthesis, under the leadership of the anti-racist Dobzhansky, brought a revised theory of natural selection to the evolutionary-biological research frontier, Montagu updated the Boasian program accordingly.³⁵

I want to close with a look in similarly historicizing spirit at a third instance of the *Descent* passage's quotation. A good way in is via a document that stands to speciesism in something like the way that the UNESCO statement stands to racism: Peter Singer's review essay "Animal Liberation," published in the *New York Review of Books* in 1973. "A liberation movement," wrote Singer, "demands an expansion of our moral horizons, so that practices that were previously regarded as natural and inevitable are now seen as intolerable."

Much of his essay describes the pain and suffering then being inflicted on animals at an industrial scale in laboratories and farms, yet with hardly a peep of protest. Singer begins, however, with reflections on the reasons that might be given for declining to back an Animal Liberation movement. One might think, for example, that the Black Liberation and Women's Liberation movements deserve support because, as a matter of fact, Black people and women are as capable as white people and men, and it is unjust for equals to be treated unequally. By contrast, non-human animals are nothing like as capable as humans, so there is no injustice in their unequal treatment. Singer thought there were two interconnected problems here. First, in deciding where to draw the line between beings we can exploit and those we can't, it is surely a mistake to anchor the decision in facts, because facts can change, and we should not be committed dogmatically to their never changing. Yes, there is no good evidence up to now for some races, due to their genes, being less capable than others races. But what if that evidence turns up tomorrow? Second, on inspection, we can't draw the line where we do out of equal-capability concerns, since individual humans differ in all sorts of ways capabilities-wise, and we don't give the more capable license to exploit the less capable. No, we draw the line where we do out of species bias. Whereas, in Singer's view, we ought to follow the utilitarian philosopher Jeremy Bentham and abandon the attempt at line-drawing, accepting instead that the same reasoning which had led enlightened people to dismiss skin color as a morally relevant demarcator among human races should lead them to do likewise for whatever mental and bodily differences distinguish the human and the non-human. As Singer quoted Bentham: "The question is not, Can they *reason*? Nor Can they *talk*? But, Can they *suffer*?" And no one except a philosopher could deny that non-human animals suffer, though the indefatigably rational Singer nevertheless spelled out the reasons for rejecting any such denial.

Notoriously, in Singer's Benthamite calculus, when we ask about the interests of potentially suffering organisms, no extra points accrue from being human. In moral terms, as the Singerian slogan (reclaimed from Orwell) puts it, all animals are equal. Even in the 1973 essay, it is plain that some uncomfortable conjectures and conclusions follow. There is that insouciance about the prospect of new evidence forcing a change of mind about the genetic basis of differences between human sexes and races. But there is also his no-limits boldness in exposing species bias. At one point, for example, he invites the reader to imagine a human infant under six months old taking the place of a non-human animal in a lab experiment needed to save thousands of human lives. Would the experimentalist object? If so, the objection cannot arise out of concern for the quality of the data, for of course, the rationale for using the non-human animal in the first place is that it is sufficiently similar to us for the experimental findings to apply to us. Far better, in that respect, to experiment directly on a human. No, Singer judges, the preference for using non-humans "is simple discrimination, for adult apes, cats, mice, and other mammals are more conscious of what is happening to them, more self-directing, and, so far as we can tell, just as sensitive to pain as a human infant. There is no characteristic that human infants possess that adult mammals do not have to the same degree." Maybe the difference that makes a difference is the future that lies ahead for the human infant – a future of vastly greater potential than the adult non-human mammal has in store? No, says Singer. If we were really so concerned with human future potential, then, for consistency's sake, we wouldn't allow abortion, or even contraception. "Moreover," he went on, "one would still have no reason for experimenting on a nonhuman rather than a human with brain damage severe enough to make it impossible for him to rise above infant level." Singer's summary is categorical:

The experimenter, then, shows a bias for his own species whenever he carries out an experiment on a nonhuman for a purpose that he would not think justified him in using a human being at an equal or lower level of sentience, awareness, ability to be self-directing, etc. No one familiar with the kind of results yielded by these experiments can have the slightest doubt that if this bias were eliminated the number of experiments performed would be zero or very close to it.³⁶

Dobzhansky and Montagu had furnished human uniqueness with a Darwinian pedigree. Soon Singer began pushing Darwinian resources and reasoning in the opposite direction. In his *Animal Liberation* (1975) – “the book that started a revolution,” according to the back cover of a later edition – the *Descent* features as the book that *should* have started the revolution but didn’t. In Singer’s view, after the *Descent*, it became impossible to deny that non-human animals are our evolutionary kin, with mental faculties no different in kind from our own. But such was the grip of speciesist ideology, even on Darwin (who, Singer noted, continued to defend vivisection and to eat meat), that human dominance over the non-human remained intact, fortified with a range of excuses for doing nothing.³⁷ In *The Expanding Circle: Ethics and Sociobiology* (1981), Singer took aim at that ideology indirectly, via the new sociobiology of E. O. Wilson, Robert Trivers and others. For Montagu, sociobiology was anathema. For Singer, however, it was the springboard to a refreshing of Darwin’s own picture of how human morality got entrenched and then extended, through the interaction of – in the words of one of Singer’s chapter titles – “reason and genes.” On the sociobiological picture, genes came in to the moral-progress picture because, in the mammalian lineage including *Homo sapiens*, individuals whose genes predisposed them to help relatives close enough to share a sufficient proportion of the same genes, and/or to help anyone who was a reliably good bet to reciprocate that help in the

future, tended to live long enough to become ancestors and so to pass on those altruism-predisposing genes. Hence, thanks to natural selection, we have inborn capacities for certain limited kinds of moral action. But thanks to natural selection, we also have reason. What Singer pressed home was reason's tendency, once it got going among altruistically inclined humans, to "expand the circle" of beings whose interests deserve to be taken into account. To appreciate reason's role in that expansion was, in his view, to see why the inclusion of non-human animals is an irresistible next step. But it was also to identify a hitherto unappreciated role for reason in future moral progress, in the deliberate crafting of social institutions and cultural life around an increasingly well-understood human nature, the better to bring out the moral best in us while restraining the worst.³⁸

Not Singer himself but an admirer, Steven Pinker, in *The Better Angels of our Nature* (2011), connected Singer's vision to the "As man advances in civilization" passage from the *Descent*. It is not too much of a stretch to see Pinker's book as a phenomenally learned filling in and filling out of the history and explanation of human moral progress sketched by Singer.³⁹ And yet, in choosing an epigraph with which to conclude proceedings, Pinker reached not for Singer but for Darwin – indeed, a passage that, as we have seen, Montagu took to be perfectly expressive of his own very different vision of Darwinism and humans. (In *The Blank Slate* (2002), Pinker lambasted Montagu as a fellow traveller of the human-nature denialism rife in the twentieth-century social sciences in which so many of Pinker's critics had trained.)⁴⁰ What Darwin wrote is wonderfully eloquent, fully displaying his gifts as a thinker and writer. And it is arrestingly positive about the moral trajectory of a species which, on that front, has let itself down badly and often. But there is more to the passage's staying power, as there is with the staying power of Darwin's work generally. I am partial to Jean Gayon's analysis of the singular longevity of Darwin's hold over his successors, even as they disagree with each other. Perhaps due to his immersion in the philosophy of science of

his own day, “Darwin’s framing ideas are almost always in a zone intermediate between ‘general facts’ of nature and theoretical ‘hypotheses’ justifiable through their consequences.” Their being hybrid in this way, Gayon continued, “opened the route to an indefinite number of rectifications, on the side of both theory and empirical data.”⁴¹ Darwinian theory thus turns out to provide not just an explanation for human moral progress but an emblem for it too.⁴²

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¹ Gayon and Petit (2019), 139. For Gayon's strenuous attempts to get Darwin off the hook for the intellectual sin, as Gayon saw it, of group selection, see Gayon (1998), 68–83. On his largely ignoring pangenesis in a similar spirit, see Loison, this volume.

² Darwin (1871), vol. 1, 100–101.

³ Darwin to Lyell, 11 October [1859], available online. For discussion, see Dixon and Radick (2009), 31, also 77–79.

⁴ Darwin (1871), vol. 1, 200.

⁵ Darwin (1871), vol. 1, 53–62. For discussion, see Radick (2007), 35–38; Radick (2008), esp. 359–64.

⁶ Darwin (1871), vol. 1, 106.

⁷ Darwin (1871), vol. 1, 201.

⁸ On Darwin on humans generally, see Radick (2013). Thanks to Steven Pinker, in an exchange after my first presentation on these topics, for flagging up the need to take seriously the changing semantics of “exterminate.”

⁹ Darwin (1872), 361. For discussion, see Radick (2018). Cf. Desmond and Moore (2009).

¹⁰ Darwin (1872), 234–35. In a note, Darwin refers the reader for further examples back to ch. 4 of the *Descent*.

¹¹ On the supposedly primitive languages of primitive peoples, see, e.g., the views of the American anthropologists Daniel Brinton and John Wesley Powell, discussed in Radick (2007), 133 and 193 respectively.

¹² Radick (2007), quotations on 96 and 107.

¹³ In a fascinating study of how early-modern and Enlightenment philosophers dealt with race, Justin Smith finds a strikingly parallel situation. For all that the era's dualists are now widely disapproved of, their stress on discontinuity between the human and non-human on the whole made them, Smith shows, far less racist than the materialists, for whom the

hierarchy of races handily filled that gap. See Smith (2015) and, for discussion, Radick (2016).

¹⁴ On Huxley, Galton, and post-Darwinian saltationism, see, e.g., Bowler (1983), 187–88; Radick (2007), 32–33 & 114–15.

¹⁵ For a concise treatment of Morgan’s life, thought and impact, see Radick (2004). For a more expansive one, see Radick (2007), esp. 73–78, 202–14. A famous diagram from Romanes correlating the growth of mental faculties in the developing human and the complexifying animal scale is reprinted in Radick (2013a), 179.

¹⁶ On Müller on language, reason, and their evolutionary origins, see Radick (2007), 16–29, 39–49, 64–69 and – as mattering for – Morgan, 74–78. On Hale, see Radick (2007), 113–16, 176–81, 369–71; also Radick (2008), 365–66.

¹⁷ On the Hale–Boas relationship, their case-making against primitive languages, and its position in the Boasian professionalization of American anthropology, see Radick (2007), 190–91 and Radick (2008), 366. For a superb overview of Boas’s biological critique of evolutionary race ranking, see Jackson and Depew (2017), 51–53.

¹⁸ Boas (1909). For discussion, see Radick (2013a), 180 and, in the context of Boas’s saltationism, Radick (2007), 371–72.

¹⁹ Boas (1911), esp. 145–51. For discussion, see Radick (2007), 193–95 and Radick (2008), 366–67.

²⁰ On the eighteenth-century origins of human rights as idea and ideal, see Hunt (2007).

²¹ On the mid-1930s efforts of UNESCO’s League of Nations counterpart, the International Institute of Intellectual Cooperation, to convene “a conference to re-establish in the minds and consciences of man everywhere the truth about race,” see UNESCO (1950), 2. On Boas’s efforts around the same time to organize American scientists in publicly opposing

Nazi scientific racism, see Brattain (2007), 1391. On social Darwinism within the German military elite during the Great War, see Radick (2019), 297–98.

²² The Declaration by United Nations has a dedicated Wikipedia article and can be read there.

²³ The Constitution of the United Nations Educational, Scientific and Cultural Organization can be read at the UNESCO website.

²⁴ See Hunt (2007), 224.

²⁵ UNESCO (1950). On the UNESCO race-statement project, see Brattain (2007).

²⁶ Montagu (1942a). For Montagu’s recollection that “Boas’s book, *The Mind of Primitive Man* ... and his course on ‘race’ that I attended in 1935 both had considerable influence on my own thinking,” see Jackson and Depew (2017), p. 100.

²⁷ UNESCO (1950), 8.

²⁸ See Kropotkin (1910) and, for discussion, Hale (2012), 245–50.

²⁹ See Montagu (1942b), Montagu (1950), Montagu (1952a) – a volume on Darwin but dedicated to Kropotkin – and Montagu (1955). For discussion in relation to the 1950 and 1952 books, see Radick (2013b).

³⁰ Dobzhansky and Montagu (1947). On their collaboration, its initiation by Dobzhansky, and its role in bringing Montagu to a more positive of view of natural selection, see Jackson and Depew (2017), 100, 109–19; also Smocovitis (2012), S114–15 and Collopy (2015), esp. 214. On the 1947 paper’s significance, see, e.g., Beatty (1994), 210–11 and Cravens (1978), 157–58, though, as Peter Collopy notes, the impact was greater among those working on human heredity and behaviour than on race per se.

³¹ Dobzhansky and Montagu (1947), quotation on 589.

³² Dobzhansky and Montagu (1947), quotation on 589.

³³ Dobzhansky to Montagu, 23 June 1947, in the Papers of M. F. Ashley Montagu, Library of the American Philosophical Society, Philadelphia.

³⁴ UNESCO (1950), 7. Montagu drew attention explicitly to natural selection's responsibility, citing the 1947 paper, in a separately published 1951 commentary on the paragraph, reproduced in Montagu 1972, 94–102, 257 n. 88. Dobzhansky queried several passages in the draft statement, but none from this paragraph; Dobzhansky to Montagu, 17 Jan. 1950, Montagu Papers. For a superb discussion of scientific debate around the 1950 statement, see Gayon 2003.

³⁵ On Dobzhansky's Boasian anti-racism and its public expression in *Heredity, Race, and Society*, his 1946 book with the Columbia geneticist L. C. Dunn, see Jackson and Depew (2017), 100, 108.

³⁶ Singer (1973). For the slogan, see Singer (1975), 1.

³⁷ Singer (1975), 224–26, 231–32; Singer (1990).

³⁸ Singer (1981). See too Singer (1999).

³⁹ Pinker (2011), Darwin quotation on 811; cf. Singer (1981), 120–21. On Singer, the “expanding circle,” and the “escalator of reason” (likewise from Singer (1981, 88, 113–14)), see, e.g., xxv, 210, 700, 783–86, 832–36. See too Pinker (2002), 166–67. But for divergent assessments of the Universal Declaration of Human Rights, compare Pinker (2018), 418–19 and Singer's remarks at <https://www.youtube.com/watch?v=unDW0JWWUB8>

⁴⁰ Pinker (2002), 24, 26–27, 124, 134, 258, 307. On Montagu's equal-but-opposite reputation in other quarters as a human-nature determinist, see Weidman (2019).

⁴¹ Gayon (2009), 298.

⁴² Might the circle's next expansion embrace plants, whose intelligence attracts increasing scientific attention? See, e.g., Calvo and Lawrence (2022). For a fine appreciation of Darwin as, once again, the pioneer, see Sacks (2017).