

**WHY EGALITARIANS SHOULD EMBRACE DARWINISM:
A CRITICAL DEFENCE OF PETER SINGER'S
*A DARWINIAN LEFT.***

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by
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*To Sue and Poppy,
and in memory of Denis Dutton (d. 2010)
and my little brother, David Whittle
(d. St David's Day, 2009).*

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Abstract

Despite most educated people now accepting Darwinian explanations for human physical evolution, many of these same people remain reluctant to accept similar accounts of human behavioural or cognitive evolution. Leftists in particular often assume that our evolutionary history now has little bearing on modern human social behaviour, and that cultural processes have taken over from the biological imperatives at work elsewhere in nature.

The leftist view of human nature still largely reflects that of Karl Marx, who believed that our nature is moulded solely by prevailing social and cultural conditions, and that, moreover, our nature can be completely changed by totally changing society.

Ethical philosopher Peter Singer challenges this leftist view, arguing that the left must replace its non-Darwinian view of an infinitely malleable human nature with the more accurate scientific account now made possible by modern Darwinian evolutionary science. Darwinism, Singer suggests, could then be used as a source of new ideas and new approaches that could revive and revitalise the egalitarian left.

This thesis defends and develops Singer's arguments for a Darwinian left. It shows that much modern leftist opposition to evolutionary theory is misguided, and that Darwinism does not necessarily have the egregious political implications so often assumed by the egalitarian left – even in such controversial areas as possible 'biological' differences between the sexes or between different human populations.

Acknowledgements

As well as an unexpected earthquake, I never imagined how my supervision arrangements would change as I wrote this thesis: one of my supervisors resigned on me, another retired, and yet another sadly died.

Perhaps it says something about my work. Or about me.

However, I was incredibly fortunate to eventually fall (pretty much literally) under the inspirational supervisory care of Dr Doug Campbell. He is an all round great bloke.

He who understands [a] baboon would do more towards metaphysics than Locke.

Charles Darwin, *Notebook M*

The philosophers have only interpreted the world in various ways – the point however is to change it.

Karl Marx, *Thesis on Feuerbach*

Foreword

When I made a pilgrimage to Karl Marx's tomb in Highgate Cemetery, London, the most human aspect that I noticed about his grandiose monument was the way in which the gravestones of lesser leftist revolutionaries appeared to jostle for position beneath their founding father's imposing bust. It seemed as if the path of socialist glory had led but to this grave, and that, even in death, there was honour and acclaim to be gained through nearness to the left's most dominant historical figure.

If ever there is evidence of human beings' inegalitarian desire for influence and status, it can perhaps be found in the grim irony of this commanding memorial to the champion of the proletariat.

Those on the conservative right might use this to mock the very idea of creating a more egalitarian 'socialist' society. Human nature, they might argue, would not sustain a society in which each citizen was expected to give according to ability and to receive according to need. Human beings are just not like that. The very failure of Marxism when put into practice, they could say, clearly demonstrates that the left is mistaken in its beliefs about human malleability and, hence, about our ability to radically change the world. Given *real* human nature, it simply cannot be done.

In ethical philosopher Peter Singer's view, both sides are likely wrong: the left in its concept of an infinitely malleable human 'species-being', and the right in its belief that egalitarian social reform will always be stymied by constrained human nature. Singer lays out his argument in his slim manifesto, *A Darwinian Left: Politics, evolution and cooperation*.

When I first read *A Darwinian Left*, I thought it contained a very simple and very useful message for the left: to realise our aspirations for how human society *should* be, we need to begin with an accurate understanding of what human beings *actually are*. Thus, the left must abandon its unrealistic Marxist concept of a malleable human nature in favour of the more realistic one provided by modern evolutionary science. Egalitarians could then use Darwinian reasoning to plan for a better and more equal future society, one that works with, rather than against, evolved human nature. What could be more straightforward than that?

Having now completed a thesis on this 'straightforward' idea, I realise how naïve I had been. Not because I no longer think that Singer's message is simple and useful; indeed, I believe more firmly than ever that a Darwinian perspective on human nature is essential to the left. Nor because I have concluded that evolutionary theory can tell us little that is politically relevant about modern human beings; in fact, I am increasingly aware of what evolutionary science (in the broadest sense) may reveal about the social and political behaviour of our fascinatingly complex and contradictory species.

Rather, I now appreciate how negatively many leftists, especially within the academic social sciences, continue to view ‘biological’ approaches to human behaviour. This has impacted on my thesis in ways that I had never initially envisaged. If the political manifesto presented in Singer’s *A Darwinian Left* is ever to gain traction, the left’s suspicions about Darwin must first be acknowledged and overcome – thus, much of the first half of my thesis is taken up assessing the left’s ongoing antipathy towards Darwinism.

A problem with the whole nature/nurture debate, as I am now sadly aware, is that many of the protagonists on either side simply talk past each other. So, rather than accepting what evolutionists *claim* their opponents believe, I have focussed on what social scientists themselves actually say about Darwinism, most especially by examining the paradigm on human nature presented within introductory texts to the relevant disciplines.

Having examined what many leftists *fear* must follow from a Darwinian view of human nature, I am able to argue that many of the standard leftist objections to Darwinism are premised on misunderstandings or misinterpretations of modern evolutionary theory.

A major obstacle to the left even beginning to acknowledge the relevance of human evolution to modern social behaviour is how it inevitably appears to lead to suspect beliefs about human difference. Allaying these genuine and understandable fears, therefore, is a necessary task for any prospective Darwinian left.

Two of the most problematic political issues that arise by taking human evolution seriously are the possibility of evolved differences between the sexes or between different racial populations. Any Darwinian approach to human social behaviour opens the door to these politically troubling issues, and while Singer largely ignores the question of sex and ‘race’ in *A Darwinian Left*, I have chosen not to shy away from this in my thesis.

Here, I suggest that a Darwinian perspective on these subjects does not (or does not necessarily) carry the egregious political implications often assumed by the left, and, furthermore, that an evolutionary understanding of possible human genetic differences could be used to effect beneficial change for marginalised or oppressed people.

In addition, the explosion in our knowledge of the human genome, and in our ability to manipulate human genes, has profound social and political implications. Yet if the left continues to distance itself from evolutionary science, egalitarian concerns and perspectives risk becoming increasingly sidelined. If nothing else, the left must become more conversant with evolutionary biology if it is to have any meaningful input into this debate; indeed, as I argue in Chapters 9-11, the left’s current uncertainty and confusion about human genetic diversity is potentially detrimental to the very people that egalitarians most wish to help.

The first 11 chapters of my thesis, therefore, deal with the stumbling blocks to the left accepting Singer’s seemingly straightforward argument. In the final chapter, I turn to the issue with which Singer himself is most concerned: how a Darwinian appreciation of human behaviour may allow us to more fully critique modern

competitive capitalist societies, and, eventually, to move such societies in a more cooperative and more egalitarian direction.

This informed critique of modern consumer society is, for me, the major appeal of Singer's *A Darwinian Left*. Leftists are not faced with a choice between simply accepting competitive capitalism, on the one hand, or pretending that capitalism has not proved more successful than socialist alternatives, on the other. Rather, evolutionary-informed leftists could view capitalism as one means of channelling aspects of our nature in ways that provide some wider social good, but not necessarily the best one.

The point is to change competitive capitalist society so that the benefits are more widely and more equitably shared, and so that our more cooperative predispositions are allowed to flourish. Yet we can only realise the dream of a more cooperative and more egalitarian future society by understanding what human nature really *is*. And for that we must turn to Darwin.

What is man? This is surely one of the most important questions of all. For so much depends on our view of human nature. The meaning and purpose of human life, what we ought to do, and what we can hope to achieve – all these are fundamentally affected by whatever we think is the ‘real’ or ‘true’ nature of man.

Leslie Stevenson, *Seven Theories of Human Nature*

Chapter 1: Introduction

This thesis examines, defends and develops the brief political manifesto presented in Peter Singer’s *A Darwinian Left*. The left, Singer claims, needs a new paradigm: weakened by the collapse of communism, the decline of the trade union movement and the adoption of market force principles by mainstream democratic socialist parties, the left has lost much of its former political power and intellectual influence. It is thus “urgently in need of new ideas and new approaches”.¹

Singer suggests a novel source of inspiration to revitalise the left, an approach based firmly on a modern evolutionary understanding of human social, political and economic behaviour: “It is time for the left to take seriously the fact that we are evolved animals, and that we bear the evidence of our inheritance, not only in our anatomy and our DNA, but in our behaviour too.”²

To anyone ignorant of the dubious history of attempts to apply Darwinian reasoning to human society, this might appear a demand for the obvious: surely social theorists of *all* political hues must take the fact of human evolution seriously – after all, an understanding of our evolved nature appears crucial to answering what philosophers Michael Rosen and Jonathan Wolff call “the obvious question” at the heart of all political inquiry: “What are men, or rather, human beings, like?”³ Without a clear understanding of what human nature *is*, political planners cannot hope to adequately prescribe how human society *ought* to be.

In an earlier critical discussion of ethics and human evolution, Singer highlights his belief that evolutionary theory “is absolutely essential for a proper understanding of human nature as well as human life and its conditions, laws, justice, and morality”.⁴ He extends this idea in *A Darwinian Left*, and argues that for his fellow leftists “an understanding of human nature in the light of evolutionary theory can help us to identify the means by which we may achieve some of our social and political goals, including various ideas of equality, as well as assessing the possible costs and benefits of doing so”.⁵ Here, Singer is not concerned with ‘the left’ as an organised political force, by rather with the broad body of thought about how to achieve a better and more equitable society.⁶

In this thesis, I take Peter Singer’s Darwinian approach to human politics to be both sensible and reasonable. In other words, I fully accept Singer’s belief that if we wish to create a more egalitarian society we first need to understand what human beings are like, and that modern evolutionary theory is indispensable to answering the ‘obvious question’ at the heart of all political thought.

My defence of ‘leftist’ egalitarianism, therefore, is based on the belief that Darwinian evolutionary theory does not automatically preclude the hope of achieving a more equal society. This point must be emphasised – especially as many people (on

both the left *and* the right) assume that Darwinian theory is incompatible with egalitarian ideals. Furthermore, the left in particular often regards any Darwinian approach to politics, such as that advocated by Singer, not as simply sensible or reasonable, but as politically objectionable in and of itself.⁷

This chapter provides an overview of why this is the case – why Singer’s call for the left to take human evolution seriously is more likely to appal than appeal to the very constituency at which it is aimed. Viewing human beings through a Darwinian lens (i.e., as evolved *animals*) is fraught with problems, most especially as any such approach appears to open the door to politically worrying ‘biological’ explanations for social inequity, most especially those regarding sexual or racial inequality. Singer himself skirts or ignores these issues. Nevertheless, before I can begin to discuss the potential political advantages of his Darwinian left, I first need openly acknowledge these troubling aspects of an evolutionary approach to human politics.

I will begin by examining the underlying assumptions about human evolution held by many of the participants in this debate. An important point is that, unless we wish to explain human nature as arising from supernatural forces or through divine intervention, any adequate political theory must ultimately be compatible with an evolutionary account of human nature. The issue here is whether ‘human nature’ is still constrained by its evolutionary past or whether human beings have now evolved beyond their earlier biological shackles.

I then turn to the odious history of political Darwinism and emphasise how the deeper we accept a Darwinian view of human nature, the more problematic it may become. I outline a range of potential ‘worst case’ scenarios for the left, from the (supposed) best case, in which desirable changes to human nature and to society are unconstrained by our evolved biology, to the worst extreme, in which social, sexual or racial inequalities could be explained in terms of a fixed and inflexible evolved human nature. My aim here is to indicate why the left appears to have good grounds to be concerned about Darwinian interpretations of human behaviour. The chapter ends with a brief overview of the issues addressed in each of the subsequent chapters.

In this thesis, I use the term ‘Darwinian’ in a very broad sense to refer to all evolutionary theories of human nature (henceforth, ETOHN) that may be relevant to modern human social or political behaviour – human sociobiology, evolutionary psychology, human behavioural ecology, gene-culture co-evolution, and the like.⁸ In addition, I will take biologist Theodosius Dobzhansky’s famous maxim that “Nothing in biology makes sense except in the light of evolution”⁹ to imply that specific aspects of genetic or biological theory are encompassed by wider Darwinian evolutionary principles. Here, therefore, the terms ‘Darwinian’, ‘evolutionary’ and ETOHN will be treated largely as synonyms, as too, unless otherwise indicated, will ‘biological’ and ‘genetic’.

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A useful account of the broad contemporary positions on human nature is provided by philosopher Janet Radcliffe Richards’ scale of ‘deepening Darwinism’, which ranges

“from anti-Darwinists at the conservative end, to ultra-Darwinists at the radical end”.¹⁰

In Radcliffe-Richards’ scheme, a ‘materialist boundary’ divides off those with religious or divine beliefs about the origins of life, at the conservative end of the Darwinian scale, from those, at the deeper or more radical end, who accept materialist (i.e., evolutionary) explanations for the living world. While non-materialist or religious attitudes towards evolutionary theory continue to cloud debate about human nature (e.g., anti-Darwinian Christian fundamentalism in the United States), these will not be further addressed here; for the purposes of this thesis, the relevant conceptions of human nature are those held by people who all accept the “materialist Darwinian view that life emerged from matter, and consciousness from life, by entirely Darwinian means”.¹¹

Radcliffe Richards distinguishes a further division in the materialist Darwinian camp itself. On one side, at the ‘Ultra-Darwinist’ end, are those who “think that an understanding of the evolutionary process that made us what we are is essential for understanding the nature of our deepest emotions and abilities”. On the other side, less deeply immersed in Darwinism, are those “[who] believe, in contrast, that we have now evolved to a state of being so much creatures of our culture that our evolutionary origins can tell us little or nothing about what we are now”.¹²

The two broad positions on human nature that I am concerned with here, then, are either (a) that human evolutionary history still has an influence on, or still places constraints upon, modern human behaviour, or (b) that the course of human evolution has allowed modern humanity to escape the constraints or influences of its biological past. I will refer where necessary to these differing materialist conceptions of human nature as, respectively, the ‘constrained’ and the ‘unconstrained’ view.

Singer’s Darwinian left, therefore, accepts the constrained view – in contrast to the traditional left’s belief that human nature is largely unconstrained by our biology. Moreover, the left’s position here reflects a long-held view of the human mind as a malleable ‘blank slate’, upon which the imprint of social experience or nurture, not biology or nature, is most evident. Thus, when Singer argues that the left must take human evolution seriously, he wishes to persuade the left to abandon the notion of a malleable human nature and accept the existence of evolved influences (or constraints) on our thinking and behaviour.

It is not difficult to see why the notion of a malleable or blank slate human nature is attractive to political reformers. If human nature is indeed malleable, then social reforms – say, political policies aimed at reducing or eliminating inequalities – are likely to have an enduring influence on human behaviour. By contrast, a constrained human nature implies that social change, however desirable, will be difficult or impossible if it goes against biologically fixed tendencies or evolved predispositions. (It is worth noting here that alternative terms for the constrained and the unconstrained view of human nature are, respectively, the ‘realist’ and the ‘utopian’ vision.¹³)

Hence, as Radcliffe Richards highlights, the left’s understandable wariness about evolutionary theory:

Defences of many kinds of tradition – established hierarchies, war, hostility to other races and cultures, and the subjugation of women to men – typically appeal to the idea that certain aspects of human nature are too deeply ingrained to be eliminated, and some of those sound ominously like the characteristics for which [modern Darwinists] are claiming evolutionary origins. People of leftward leanings have therefore been inclined to resist the whole enterprise out of hand, as a suborning of science by the political forces of conservatism and authoritarianism.¹⁴

Indeed, the belief that ETOHN are scientifically and socially misguided has been a consistent feature of left-wing attitudes towards modern Darwinian theory, beginning with the vocal opposition to E.O. Wilson's seminal *Sociobiology: The new synthesis* and Richard Dawkins' *The Selfish Gene* in the 1970s.¹⁵

While many modern evolutionary theorists regard much of this opposition as ideologically motivated,¹⁶ it is nevertheless the case that Darwinism's dubious political past – in which evolutionary ideas were indeed misused in socially egregious ways – provides the left with genuine grounds to be suspicious of Darwinism's modern manifestations. Any contemporary attempt to apply evolutionary biological concepts to our species' behaviour, therefore, must openly acknowledge this dark and shameful history.

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When Darwin published *On the Origin of Species* in 1859 he was careful to avoid the subject of humankind, beyond the cautious suggestion that 'light will be thrown on the origin of man and his history'. Nevertheless, Darwin's theory of natural selection was immediately associated with the influential laissez faire political beliefs of leading 19th century social theorist Herbert Spencer. (Indeed, Spencer's phrase 'survival of the fittest' was itself later adopted by Darwin.) According to historian Richard Hofstadter, Spencer's comprehensive 'evolutionary' worldview, which united "everything in nature from protozoa to politics", ultimately "gave Spencer a public influence that transcended Darwin's".¹⁷

Of most relevance to leftist attitudes, however, was Spencer's opposition to state interference in the 'natural' organisation of society, including his rejection of the notion of welfare assistance to the poor or 'unfit': "The whole effort of nature is to get rid of such, to clear the world of them, and make room for better".¹⁸ Such ideas, to which the term Social Darwinism was later applied, had immediate appeal to the leading capitalists of the day; industrialist Andrew Carnegie, for instance, defended nature's 'law of competition' in his essay *The Gospel of Wealth*: "We accept and welcome ... as conditions to which we must accommodate ourselves, great inequality of environment; the concentration of business, industrial and commercial, in the hands of a few; and the law of competition between these, as being not only beneficial, but essential to the future progress of the [human] race."¹⁹

An obvious target for these arguments was the great figurehead of the left, Karl Marx.²⁰ Carnegie, for instance, emphasises this contrast when he argues “civilisation took its start on the day when the capable, industrious workman said to his incompetent and lazy fellow, ‘If thou does not sow, thou shalt not reap’, and thus ended primitive Communism by separating the drones from the bees”.²¹

It is thus unsurprising that Darwinian theory was also adopted by others whose sexist, racist or chauvinistic beliefs would repel the modern left. For example, as evolutionary psychologist Steven Pinker points out:

Darwin’s cousin Francis Galton had suggested that human evolution should be given a helping hand by discouraging the less fit from breeding, a policy he called eugenics. Within a few decades laws were passed that called for the involuntary sterilization of delinquents and the ‘feebleminded’ in Canada, the Scandinavian countries, thirty American states, and, ominously, Germany. The Nazis’ ideology of inferior races was later used to justify the murder of millions of Jews, Gypsies, and homosexuals.²²

Given this horrific precedent, any even-handed discussion of the social or political implications of ETOHN must accept that Darwinian theory has been, and can be, badly misused. One criticism of Singer, therefore, is that he largely sidesteps this issue. Beyond brief reference to the likes of Spencer and Carnegie,²³ Singer avoids mention of the past association between Darwinism and horrendous political programmes such as state-sponsored eugenics or Nazi racial biology.

Of course, given that *A Darwinian Left* is only an outline manifesto (with fewer than 70 pages), there are constraints on what can and cannot be discussed. However, in failing to fully acknowledge the obvious (right-wing) misapplication of Darwinian ideas, Singer also fails to address an obvious source of left-wing opposition to his own Darwinian argument – that it is tainted by long-since discredited political beliefs.

Furthermore, many of the issues central to the objectionable political beliefs historically associated with Darwinism – those concerning, say, class, sex or race – have not gone away. Recent media debate in New Zealand, for example, has included justifications for unequal pay rates for women on the grounds of biological sex differences, descriptions of the indigenous Maori people as inherently violent and anti-social, and calls to restrict the ‘underclass’ from breeding.²⁴

Such arguments are often based on the belief that observed inequalities between members of different races or classes, or between men and women, are the result of innate *biological* differences – and these arguments arouse huge controversy (and thus popular media attention) because they go against the modern liberal belief that such inequalities are solely the result of social or cultural factors, such as discrimination or prejudice.

Significantly, Singer himself questions the contemporary liberal explanation for the causes of social inequality. In concluding his thesis, for example, he highlights some of the unique features that distinguish a Darwinian left from traditional versions

of the left and, in particular, that a Darwinian left would not “[a]ssume that all inequalities are due to discrimination, prejudice, oppression or social conditioning. Some will be, but this cannot be assumed in every case.”²⁵

Such a conclusion, of course, would be very worrying for the traditional left: if social inequalities are *not* solely the result of discrimination or social oppression, what else could be the cause? Given Singer’s emphasis on Darwinian evolution, leftists might mistakenly assume that, like the eugenicists and Social Darwinists of the past, he too is positing a biological explanation for the social disparities that are so obvious in the modern world.

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The aim of the above discussion has been to describe the general nature of the left’s opposition to evolutionary theory and, hence, why it is likely to similarly oppose Singer’s Darwinian left. In particular, Singer’s insistence that we must not assume that social disparities are solely the result of social factors appears to open the door for the return of discredited biological explanations for existing inequalities. And Singer merely makes this obvious by questioning the traditional left’s exclusively environmental approach to social disparity.

Yet because sexism, racism, and other undesirable social prejudices and practices all have historical associations with Darwinian thinking, Singer is entering academically toxic territory by advocating a Darwinian perspective on human social and political behaviour. As Steven Pinker points out: “The landscape of the sciences of human nature is strewn with these third rails, hot zones, black holes, and Chernobyls.”²⁶ As an example, I will briefly outline one particular academic Fukushima that Singer’s Darwinian left must ultimately face: possible biological explanations for the causes of racial inequality (a topic to which three of this thesis’ chapters are devoted).

Evolutionary accounts of human biological difference often provoke strong emotional responses, even among avowed Darwinists. For example, in reviewing psychologist Philippe Rushton’s controversial *Race, Evolution and Behavior*, in which intelligence, crime rates, cultural achievement, and the like are explained in terms of evolved differences between races, sociobiologist David Barash expresses the following opinion: “Rushton argues at length ... that by combining numerous little turds of variously tainted data, one can obtain a valuable result; but in fact, the outcome is merely a larger than average pile of shit.” Barash concludes: “Bad science and virulent racial prejudice drip like pus from nearly every page of this despicable book.”²⁷

What is particularly noteworthy in this case, beyond the fact that these opinions were expressed as a peer review in an academic journal, is that David Barash has himself faced similar censure for his evolutionary-informed stance on human behaviour – for instance, being portrayed as a misogynist apologist for the biological ‘naturalness’ of rape because of his own research into differences in male and female behaviour.²⁸

And of course thoughtful people become concerned, even deeply upset, about issues such as racial (or sexual) inequality. For example, what if the biological-genetic opinions expressed by the likes of Philippe Rushton – that some racial groups are less intelligent or are more criminal than others – became generally held? Or if the belief was accepted that there are evolved genetic differences in intelligence or social behaviour between races, and that these, to a greater or lesser extent, explain observable inequalities in social outcomes, such as economic status, employment, education, or social cohesion? It is not implausible, indeed it appears very probable, that those holding such beliefs would conclude that there is little that can be done to ameliorate obvious social disparity.

Or, perhaps worse for the prospects of an egalitarian Darwinian left, what if a detailed evolutionary analysis actually did indicate the existence of cognitive and psychological differences between ‘races’, or between men and women, or members of different social classes? What if peoples really could be classified (or stigmatised) in terms of cognitive ability or behavioural tendencies? In this case, it would seem inevitable that we must simply resign ourselves, by weight of scientific evidence, to the possibility that there really is little we can do to improve the lot of certain peoples relative to others.

Given either of these possibilities – that accounts of cognitive or behavioural difference may come to be believed, or that such differences may actually be shown to exist – would it not be best to simply leave well alone? Philosopher Philip Kitcher suggests that this is a reasonable, and perhaps even necessary, option: that if certain areas of human biological research have the potential to revive unjust and damaging social beliefs, or to impose “considerable burdens” on particular groups, then it may be best to abandon these lines of enquiry altogether.²⁹

In the real social world that Kitcher refers to, the world peopled by *real* human beings, the anaemic sounding ‘considerable burdens’ can equate to horrendous or unbearable inequalities. In Peter Singer’s home country, Australia, for example, the most blatant disparities exist between indigenous Aborigines and latter arriving Australian peoples.

Who can witness, or read about or watch documentary footage of the lives lived by many Australian Aborigines without feeling appalled? That such poverty and suffering can exist in one of the world’s richest countries merely adds to the outrage. Equally shocking are the stories of the casual and callous disregard for Aboriginal lives throughout Australia’s colonial history. The co-discoverer of natural selection, Alfred Russel Wallace, for instance, witnessed an Australian farmer shooting a baby off the back of a passing Aboriginal woman simply to demonstrate the accuracy of a new rifle.³⁰ Perhaps this, and similar eye-witness experience of the attempted ‘eradication’ of native populations in South America, was a source of Wallace’s deep socialist convictions, or can help explain why Wallace eventually came to reject the applicability to human beings of his and Darwin’s amoral theory of natural selection.

Countless other distressing instances of racial prejudice could be provided, as could graphic examples of the misogynist mistreatment of women, or of the abuse and exploitation of people at the bottom of the social hierarchy. But the point is to

emphasise that the ideas and beliefs being analysed here – such as those concerning human capacities and behaviour – can and do relate to the real world. This discussion of social inequality is not just a philosophical thought experiment. It concerns real human beings, really suffering.

An additional unfortunate complication to any attempt to address issues of social inequality or discrimination from a Darwinian perspective, therefore, is that these topics are so entwined with thinking people's deepest moral convictions that rational discussion (including that of academia's supposedly neutral, disinterested standpoint) becomes incredibly difficult. As Steven Pinker point out, people's opinions on race, gender or class (or education or violence or sexual orientation or any of the other 'hot buttons' in the human sciences) "help define the kind of person that they think they are and the kind of person that they want to be".³¹

Yet Pinker as goes on to indicate:

Unfortunately, folded into these opinions are assumptions about the psychological make-up of *Homo sapiens*. Conscientious people may thus find themselves unwittingly staked to positions on empirical questions in biology or psychology. ... So when the facts tip over a sacred cow, people are tempted to suppress the facts and to clamp down on debate because the facts threaten everything they hold sacred. And this can leave us unequipped to deal with just those problems for which new facts and analyses are most needed.³²

If egalitarians do genuinely wish to create a better society, they must begin with an accurate understanding of what human beings are like, however unpalatable this may initially appear.

Here, though, the relevant issues are too complex, and too politically important, to adequately address without the supporting detail and argument provided in this thesis' subsequent chapters. For the time being, therefore, I will simply acknowledge that any Darwinian approach to egalitarian political ideals may, eventually, have to turn its evolutionary spotlight on some very uncomfortable areas of debate, areas that, on balance, may indeed be better off left in darkness.

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Radcliffe Richards' notion of deepening Darwinism can be co-opted to describe a descending scale of four levels of what evolutionary theory may say about the 'obvious question' of what human beings are like. While this scale is to some extent arbitrary, it highlights certain of the most problematic political issues for the left in accepting a Darwinian perspective – especially as regards potential evolved biological aspects of sex and race.

Level 1. The processes of Darwinian evolution have, in effect, allowed humans to break free from their evolved biological past. In this view, which is here equated with the blank slate or unconstrained vision of human nature, cultural and

environmental processes are those that most influence any politically relevant aspects of our behaviour.³³

The idea of a malleable, culturally-constructed human nature appears, at least initially, to be the best case scenario for leftist reformers. If a competitive self-interested society produces competitive self-interested citizens, who themselves perpetuate the original society, then the role of leftist political reformers is to change society so that it produces cooperative altruistic citizens who will themselves create and sustain a cooperative altruistic society.

Level 2. Human evolution has resulted in a relatively fixed but universal human nature. Of the modern ETOHN, evolutionary psychology in particular champions the idea that a suite of universal psychological traits are ‘species typical’ for human beings the world over, and that evolutionary processes have resulted in the ‘psychic unity of humankind’.

The Level 2 view of a universal human nature suggests that there are evolved constraints on what is socially or politically possible. Nevertheless, despite such possible constraints, the universalist belief that everyone is endowed with the same basic mental abilities implies that all humans begin on an equal footing. Differences in social outcomes (e.g., inequalities), therefore, are the result of different circumstances, not different ‘biologies’. This also suggests that any political policies (including egalitarian ones) aimed at changing the social environment would apply equally to all humans.

Level 3. As we are descended from a long line (stretching for thousands of millions of years) of sexually reproducing organisms, behavioural differences between the sexes would appear deeply rooted in our animal heritage – thus, we could predict that women and men have different evolved psychological predispositions.

Here, evolutionary reasoning suggests that sex roles are not, or not just, the result of cultural practices or conditioning but that, rather, they arise from the different psychological propensities of males and females. If this is the case, then evolved sex differences may have a bearing on attempts to address sex inequality by changing social practices. The worry for the left is the implication that sex inequalities are an inevitable and ineluctable feature of human society.

Level 4. If humans are a biological species, then we might expect separate human populations to have diverged genetically over time as humans colonised the globe. That such genetic divergence has occurred between different populations at the physical level (skin colour, facial characteristics, etc.) appears obvious, as does the possibility of similar genetic changes in body chemistry (e.g., resistance to locally occurring disease). In principle, given time and isolation, continuing genetic divergence would lead to speciation – and, as indicated by the hominid fossil record, this has occurred numerous times in the human lineage, with several ‘human’ species, such as *H. neanderthalensis* and *H. floresiensis*, now known to have been coexistent with modern *Homo sapiens*.

The political concern here is that the biological notion of divergent human populations overlaps with folk-biological concepts of ‘race’, and, further, that the obvious physical differences between racial populations may be matched by

behavioural or cognitive differences. A worrying implication here is that, if biology rather than culture is a root cause of racial disparities, political efforts to ameliorate inequalities may flounder.

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I will have little to say about the legitimacy of the scientific theories upon which Singer's argument is premised; after all, determining the validity or otherwise of any such scientific theories is a job for evolutionary biologists, not social or political scientists. At the same time, however, critically examining the implications of ETOHN, should they prove correct, is a task that political philosophers and social theorists can usefully pursue. That is, even if the question of human nature were to remain open, we could still usefully ask what hinges on different views – for example, whether egalitarian beliefs are dependent on an unconstrained or malleable human nature, or whether they are curtailed by a constrained or evolved one.

This thesis' chapters can be broadly divided into two related sections. In Chapters 2-5, I examine in more detail why, in addition to the historical association between Darwinism and odious political beliefs, the contemporary left appears reluctant to accept an evolutionary perspective on human social behaviour. In Chapters 6-11, I examine each of the 'worst case' levels of deepening Darwinism in turn.

In *A Darwinian Left*, Singer suggests that if the left understood the obstacles in the way to its political goals, it would be better able to overcome them. Something similar may be said about the obstacles in the way to the left accepting Singer's (albeit brief) political manifesto for a revived and revitalised left: for this manifesto to be adopted, it is necessary to fully understand, and hence to overcome, the left's political and normative objections to Darwinian theory.

In Chapter 2, I place Singer's evolutionary-informed political argument into a wider academic context by examining the prevailing paradigm about human nature within modern political philosophy. As most contemporary political theories appear to overlook biological accounts of human nature, I examine various Darwinian arguments for why they may be wrong to do so.

The right in particular have often attempted to derive political arguments from the facts (or purported facts) of human evolution. In Chapter 3, I examine how the left has traditionally responded to these right-wing claims, beginning with Marxist criticisms of Darwinism and leading up to more recent relativist or 'postmodernist' rejection of evolutionary theory. I argue that much of the left's contemporary opposition to ETOHN, including the belief that Darwinism is inherently right-wing, is based on misunderstanding or misrepresentation of what modern evolutionary theory actually implies about human social organisation and behaviour.

By reducing human existence to the purposeless replication of 'selfish genes', modern evolutionary theories appear to rob human life of dignity and meaning. Religious objections to such a view of human existence are therefore to be expected, but even secular-minded people may resist the apparent reductionism and

determinism of evolutionary concepts of human behaviour. In Chapter 4, I argue that modern Darwinian theories are not deterministic or reductionist in the extreme sense implied by many left-wing thinkers, and that traditional leftist explanations for human behaviour may in fact be more problematic than evolutionary-informed alternatives.

In Chapter 5, I return to the relationship between scientific facts and moral or political beliefs, and examine Peter Singer's own arguments about how evolutionary theory can connect with ethics or politics. I use political scientist Larry Arnhart's attempt to derive conservative moral values directly from evolved human biology as a case study of the fallacy of deriving *ought* from *is*.

Chapter 6 begins the analysis of the levels of deepening Darwinism. Using anthropologist Margaret Mead's influential *Coming of Age in Samoa* as a starting point, I examine why the left is seemingly committed to the Level 1 view that human nature is malleable and unconstrained by our evolved biology. In asking whether leftist political values are dependent on such a view of human nature, I conclude that the traditional leftist stance on human malleability is less politically liberating than social progressives often assume.

In Chapter 7, I contrast the Level 1 'utopian' view that social transformation is possible due to the malleability of human nature with the Level 2 'tragic' view that social reform is likely constrained by a fixed human nature. Singer's Darwinian argument initially appears to place him on the 'tragic' or conservative side of this debate. Nevertheless, after discussing various modern ETOHN, I suggest that Darwinian theory need not imply all-embracing constraints on desirable political change, and that Singer's emphasis on the human capacity for reason as a means to overcome our evolved non-egalitarian predispositions places him firmly within the utopian current of political thinking.

The possibility of evolved psychological differences between men and women is the Level 3 'worst case' scenario for the left, especially if this implies a check to our ambitions for a more sexually equal society. In Chapter 8, I argue that applying Darwinian reasoning to the causes of sexual inequality may not necessarily be as politically deleterious as leftists often assume – and that, indeed, a refusal to accept the possibility of sex differences may itself prove detrimental to the feminist egalitarian cause.

Chapters 9-11 address perhaps the most controversial aspect of a Darwinian approach to social inequality, the implications of possible evolved differences between racial populations. In Chapter 9, I examine arguments for and against the likelihood of evolved racial differences, beyond skin-deep physical dissimilarities. I conclude that, despite an apparent consensus view that human 'races' are not biologically real, the possibility of evolved racial differences remains an open question. While this does not derail our desire for racial equality, I further argue that a failure to acknowledge this possibility may prove counter-productive, especially if it hinders a clearer understanding of the genetic basis of health disparities between different racial groups.

In Chapter 10, I turn to the wider social consequences of research into potential racial differences. I examine two arguments: that scientific research, such as

that into human diversity, should be pursued no matter what the social consequences; and that, such is the potential for deleterious social outcomes (such as a revival of racist beliefs), we should perhaps curtail evolutionary genetic research into our own species. Here, I advocate a *pragmatic* approach, that of steering an open and honest course away from the possible deleterious consequences of human genetic research and towards that which will provide genuine benefits to otherwise oppressed or marginalized people.

I end Chapter 10 with two case studies of how a pragmatic approach to genetic diversity may be effected in practice (focussing on health disparities between Maori and non-Maori populations in New Zealand), and I then further develop this line of argument in Chapter 11, where I also reiterate my belief that treating the subject of 'race' as taboo is detrimental to the leftist cause. I suggest that a more nuanced evolutionary analysis of racial differences would emphasise the effects of genes *and* environment on human behaviour, and that, contrary to leftist assumptions, a Darwinian approach to racial inequality could reinforce egalitarian attempts to improve marginalised people's (or peoples') social circumstances.

The initial 11 chapters of this thesis are, to a large extent, an attempt to clear away the political and moral stumbling blocks to the left accepting an evolutionary perspective on human nature. In Chapter 12, I turn to Singer's own central concern: how a Darwinian appreciation of human behaviour may provide the left with new ideas and new approaches to challenge the hegemony of competitive capitalism. In particular, Singer argues that, as a result of our evolutionary history, human beings possess both altruistic and cooperative traits *and* self-interested and competitive ones: the task for evolutionary-informed egalitarians is to foster the former while channelling the latter in socially desirable ways.

I critique and develop Singer's (albeit brief) suggestions about how an evolutionary understanding of our behaviour may help mitigate the undesirable aspects of social competition, and accept his claim that for the left to remain ignorant of our evolved nature is to risk disaster. I end the chapter by emphasising Singer's belief that an appreciation of our evolutionary heritage may actually allow us to reason ourselves free of the constraints that our biological past has hitherto imposed upon us.

In 1906, Graham Wallas reported on a clergyman's response to his remark that many people now accepted Darwin's view of human evolution. 'Yes,' he said, 'we all accept it, and how little difference it makes.'

Diane Paul, *Darwin, social Darwinism and eugenics*

Chapter 2: The Paradigm on Human Nature

Reflecting a philosophical tradition stretching at least as far back as Ancient Greece, modern social theorists such as Leslie Stevenson, Michael Rosen and Jonathan Wolff suggest that one of the most important questions of all is, 'what are human beings like?' As Stevenson argues, our ideas about what we ought to do, or what we can hope to achieve "are fundamentally affected by whatever we think is the 'real' or 'true' nature of man".¹ According to Peter Singer, in *A Darwinian Left*, this 'obvious question' can only be adequately answered through a better understanding of human evolutionary history.

Of course, as indicated in the previous chapter, many political theorists (and leftists in particular) are reluctant to take seriously the fact that we are evolved animals. While the subsequent chapters of this thesis will examine why this is the case, and whether the implications of ETOHN are indeed as politically egregious as many leftists seem to think, in this chapter I wish to place Singer's Darwinian approach to politics within the wider context of contemporary approaches to political theory – that is, to assess how modern ETOHN are treated by those disciplines whose subject matter depends, implicitly or explicitly, on an answer to the question, 'what are human beings like?'

As part of this task, I will examine the prevailing paradigm, or set of underlying theoretical assumptions, about human nature within modern political philosophy. As will become apparent, the fact of human evolution and its possible bearing on modern social behaviour appears to play little part in contemporary political discourse; an additional aim of this chapter, therefore, is to indicate why and how Darwinian theory may be more relevant to political thought than modern social theorists assume.

Indeed, at a 'meta-theoretical' level, taking the fact of human evolution seriously may have far-reaching implications for how political philosophy (the discipline that attempts to prescribe how society *ought* to be organised) is itself undertaken. For example, in his 1981 essay 'Ethics and sociobiology', Peter Singer indicates an important potential consequence of adopting an evolutionary approach to political theory: if Darwinian biology can in fact provide a valid account of human nature, then political philosophers may have to concede that "the efforts of Plato, Aristotle, Aquinas, Hobbes, Hume, Rousseau, Kant, Hegel, Marx, and all the other great figures of the past to achieve this understanding have been built on ignorance".²

In other words, if Singer himself is correct with this sweeping judgement of the past two millennia of Western philosophising, then a Darwinian approach to human nature would require us to question (and very possibly reject) all theorising and speculation about human nature and society, from all cultures and all periods, that has been made in ignorance of modern evolutionary theory. Thus, while the overall

aim of this thesis is to examine the implications of Darwinism for egalitarian political theories, a more specific focus of this chapter is to assess what an evolutionary approach to human behaviour might mean for the very discipline of political philosophy itself.

Before turning to modern political philosophy's paradigmatic assumptions about what human beings are like, I will first flesh out the position hinted at by Singer above – that the findings of modern evolutionary science may render redundant much of the traditional theorising about human nature and society.

Evolutionary biologist Richard Dawkins, for example, openly derides pre-Darwinian concepts of human nature and human existence. On the opening page of his seminal *Selfish Gene*, Dawkins opines that, given Darwinian theory, “We no longer have to resort to superstition when faced with the deep problems: Is there a meaning to life? What are we for? What is man?”³ And in response to the last of these queries, ‘What is man?’, he provocatively echoes fellow zoologist G.G. Simpson’s frank opinion that “all attempts to answer that question before 1859 are worthless and that we will be better off if we ignore them completely”.⁴

Dawkins admits that this view might initially sound philistine or intolerant, but nevertheless argues:

[R]eligious answers apart ... when you are actually challenged to think of pre-Darwinian answers to the questions ‘What is man?’ ‘Is there any meaning to life?’ ‘What are we for?’, can you, as a matter of fact, think of any that are not now worthless except for their (considerable) historic interest? There is such a thing as being plain wrong, and that is what, before 1859, all answers to those questions were.⁵

This, then, represents an extreme implication of Darwinian theory to political philosophy’s obvious question about the nature of humankind; that, just as the theories of pre-Newtonian physics, say, are now viewed as little more than historic curiosities, so too should pre-Darwinian philosophical concepts of human nature. From this perspective, modern ETOHN render all earlier ideas (such as those of Karl Marx) irrelevant to a modern understanding of what human beings are like.

In Dawkins’ and Simpson’s view, the best way to tackle the ‘deep problems’ of human existence would be to simply start over again with the only tenable and coherent account of human existence that we have: Darwin’s evolutionary theory of descent with modification. Furthermore, this is an argument that is implicit in Peter Singer’s call for the left to abandon the (non-Darwinian) Marxist view of a malleable human nature, unconstrained by its evolutionary past.

Indeed, it is now over 150 years since Darwin first proposed his naturalistic account of the origins of life, and most educated people would now accept that humans share their ancestry with all other living beings. Singer’s belief that we need to take evolved human tendencies into account in our social and political planning, therefore, might appear to be simply stating the obvious. This is apparent, for example, in his 1981 appraisal of the (then-emerging) discipline of sociobiology: “As

long as we continue to study and cite Hobbes, Rousseau and Marx – none of whose views of human nature can today be ranked as scientific – it would be perversely backward looking to refuse to even consider sociobiology and what follows from it.”⁶

Of course, three decades after Singer expressed this opinion (and 15 decades after Darwin first published his), we still continue to study and cite the non-scientific views of the likes of Hobbes, Rousseau and Marx. This raises an interesting question: is this because these thinkers continue to have relevant things to say about human nature? Or is it due instead to the dead weight of history – that political philosophers study these theorists simply because they are the theorists that have always been studied? And, if more the latter, would we not be better off simply starting afresh with an accurate Darwinian account of human nature?

If little else, by following this line of reasoning, we could query certain philosophical arguments or beliefs about how society ought to be organised; for example, by asking whether these arguments are compatible with what modern Darwinian science might reveal about human nature and human potential. The issue here is succinctly (and amusingly) illustrated by an apocryphal comment by the founder of sociobiology, E.O. Wilson, who, when he first became acquainted with the tenets of Marxism, is reported to have replied: “Wonderful theory; wrong species”.⁷

This is not (or not just) a facetious comment, for it raises the possibility that, if and when political philosophy’s analysis of competing social arguments is completed, and one particular theory is shown to be the most morally compelling or the most rationally coherent, that this too might prove a wonderful theory but for the wrong species. Singer himself highlights this issue:

Political philosophers and the revolutionaries or reformers who have followed them have all too often worked out their ideal society or their reforms, and sought to apply them without knowing much about the human beings who must carry out, and live with, their plans.⁸

Thus, rather than working out an abstract plan for an ideal society and attempting to apply it without regard for the people who will inhabit this pre-conceived world, Singer instead argues that “those seeking to reshape society must understand the tendencies inherent in human beings, and modify their abstract ideals in order to suit them”.⁹

Of course, providing an accurate account of ‘the tendencies inherent in human beings’ is a task for evolutionary biologists, not social scientists or philosophers (albeit that the role of the latter would be to assess the social or political implications of whatever view of human nature actually turns out to be sanctioned by Darwinian theory). My aim in this chapter, therefore, is not to evaluate if and how particular theories are consistent with Darwinism, but rather to identify the prevailing paradigm on human nature within modern political philosophy and political science, and to assess whether these disciplines’ approach to human nature is potentially misguided (or, as Dawkins puts it, ‘worthless’) given a modern understanding of human evolution.

One method of identifying the prevailing paradigm within a discipline – in this case, the underlying assumptions about what constitutes a relevant system of belief about human nature, and about how we may best analyse and compare various rival theories of our nature – is to examine that subject’s introductory texts (i.e., those texts, aimed at neophytes, that define or circumscribe a particular discipline’s scope of intellectual enquiry). For example, we could ask how Rosen & Wolff address the question they themselves raise – ‘What are men, or rather, human beings, like?’ – in the introduction to their anthology of *Political Thought*.

Here, Rosen & Wolff turn to the great figures of the past:

If we are to take human beings as they are, first we have to know what they are. Rousseau had his own complex view; namely that man in a state of nature is innocent, and that the evil found in society is social in origin. We will look at Rousseau’s view, as well as the opposed views of Hobbes and Locke ... these three towering figures of modern political philosophy ...”¹⁰

This appears to be precisely the approach to human nature criticised by Singer (and, more forcefully, by Dawkins) above. That is, in light of the revolution in our understanding of the natural and human world that Darwinian theory has brought about, this armchair approach to human nature – here, through reference to 17th and 18th century theorists – comes across as ‘perversely backward looking’. Asking the question ‘what are human beings like?’ without reference to modern human evolutionary biology appears akin to someone wondering what stars are like and yet being uninterested in what modern astrophysics has revealed about the subject.

Nevertheless, the belief that political philosophy’s ‘obvious question’ can be answered through analysis of the views of the towering trio of Hobbes, Locke and Rousseau is also apparent in Wolff’s *Introduction to Political Philosophy*, in which the discipline’s paradigmatic method of assessing various theorists’ claims about human nature is also revealed.

For example, in a chapter on the origins of political institutions, Wolff prefaces his analysis of Hobbes’ ‘brutal, nasty and short’ vision of the original state of human nature by suggesting that “we could hardly abolish the state just to find out what life would be like without it, so the best we can do in practice is to carry out this process as a thought experiment”.¹¹ Subsequently, he argues: “One way to avoid Hobbes’s pessimistic conclusions about the state of nature is *to start from different premises*. In particular, life without the state might seem a much more attractive possibility *if we adopted a different theory* of human nature and motivation” (say, Locke’s or Rousseau’s more positive views about what human beings are naturally like).¹²

What, then, can we make of this approach to human nature? Given, say, modern palaeo-anthropological findings about ancestral human behaviour,

ethnographic studies of hunter-gatherer societies, psychological investigation of human motivation – indeed, the whole burgeoning field of evolutionary and psychological research into human behaviour – philosophical thought experiments do not appear the most appropriate means to discern the human state of nature. Or rather, it would appear *more* useful to begin the political discussion with modern science’s more accurate account of prehistoric human society (an account, moreover, that refutes both Hobbes’ and Rousseau’s belief that early man was a solitary animal).

Similarly, critical analysis of Hobbes’, Locke’s or Rousseau’s 17th and 18th century views on human nature no longer appears a useful starting point for investigation into how human society should best be organised. Indeed, to the extent that higher level political arguments – say, Hobbes’ defence of a ‘Leviathan’ system of government, or Rousseau’s concept of the ‘general will’ – are premised on initial beliefs that are “plain wrong”, the idea of starting again with a more accurate scientific account of human nature (as Dawkins argues) appears simple common-sense.

In addition, Wolff here suggests that we could avoid the undesirable political conclusions that arise from one view of human nature by changing our initial premises. This appears a paradigmatic practice: that is, challenging one view of human nature, and of the political argument that arises from it, with another view of human nature with more desirable political consequences. But if none of the underlying theories actually accurately reflects human nature then this sort of analysis appears merely an academic exercise (in the pejorative sense). Once again, and while philosophy does have a valid role to play in assessing ‘what follows if?’ a particular theory of human nature is true, it would appear more productive to first determine the truth about human nature – via the best means available, Darwinian evolutionary theory – before developing more detailed philosophical arguments.

This would not, of course, render Hobbes’ or Rousseau’s or Locke’s political thinking redundant, or invalidate all aspects of their political arguments. These three would remain towering figures in political philosophy even if their views on human nature were in many respects erroneous. The point is, though, that the traditional approach to determining ‘what human beings are’ – by challenging the views of one armchair thinker with those of another – appears to overlook the fact that the obvious question of human nature is an empirical rather than a philosophical one, and that an accurate scientific account of what human beings are like is now a possibility. (Interestingly, in *Leviathan*, Hobbes attempts to provide a scientific explanation of human behaviour and motivation – in which case, his is an account that is several centuries out of date.)¹³

This criticism – that much political argument overlooks empirical accounts of human nature and behaviour – can be extended to the manner in which philosophers such as Leslie Stevenson, Michael Rosen and Jonathan Wolff tackle different political ideas about human malleability.

Rosen & Wolff, yet again, address the question of whether human nature is fixed or fluid in the paradigmatic manner: through reference to the contrasting views of important historical figures. For example, after first describing Jean-Jacque

Rousseau's assumption that there are fixed limits to human nature, Rosen & Wolff comment:

This is a major assumption, for is it so obvious – is it even true? – that human nature is fixed? Many have thought that if conditions on earth became properly fit for human beings then human beings will learn new ways of behaving and new forms of enjoyment. The thought is that we are constrained by social conditions. Change the social conditions and we will change too.¹⁴

Revealingly, despite the empirical nature of the question, 'is it true that human nature is fixed?', Rosen & Wolff turn to 19th century political thinkers such as Robert Owen, Karl Marx and Friedrich Engels to provide an answer – i.e., to the sort of non-scientific views about human nature criticised by Singer and Dawkins. Once again, it is surely worth asking how appropriate or useful it is to base political arguments on these sorts of theories, those made without reference to what modern evolutionary science can reveal about human nature.

After all, unless we are to accept divine or transcendent explanations for our existence, human nature must be explicable in evolutionary terms. Thus, for instance, if there really is no essential human nature – if we are simply 'blank slates' upon which culture alone leaves its imprint (as Marx, Engels and Owen assumed) – we need an explanation of how, over the course of our species' evolution, this has come about, and how modern humans have escaped the sort of biological constraints on behaviour that are evident in our closest primate relatives (with whom we share common ancestry). This is not a claim that all non-Darwinian political ideas should be rejected *in toto*; but it is the claim that any theory of human nature that underlies these political ideas must be compatible with what evolutionary science may tell us about the real nature of human nature.

It is interesting to note that Rosen & Wolff also refer to the views of the anarcho-communist Peter Kropotkin, whose major work, *Mutual Aid*, was based firmly on Darwinian theory. Briefly, Kropotkin rejected the emphasis that then-contemporary Darwinists had placed on competitive struggle, and, more especially, the manner in which this was held up as a mirror for the 'naturalness' of human competition.¹⁵ Kropotkin instead based his socialist argument for a more mutually supportive human society on the widespread cooperation *within* species evident in the natural world.

Unfortunately, Kropotkin's theory was based on a misconception about how Darwinian evolution actually operates. According to Singer, "[Kropotkin] went astray in trying to explain exactly how mutual aid could work in evolution, since he did not see clearly that for a Darwinian there is a problem in assuming that individuals behave altruistically for the sake of the larger group".¹⁶

The relevant point here, however, is that we can use modern evolutionary theory to reject the erroneous aspects of Kropotkin's Darwinian argument – and, therefore, to question the political conclusions that he draws from it. But if we are able to do this with Kropotkin because his account of human nature happens to be a

Darwinian one, surely we can do the same with any other theorist's *non*-Darwinian view of human nature; that is, to point out if and how such a view is 'plain wrong' from the perspective of modern ETOHN.

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While cursory, the above discussion suggests that modern ETOHN do not play much part in answering political philosophy's obvious question, 'what are human beings like?' And that this reflects the wider paradigm within political philosophy is further indicated in evolutionary psychologist Steven Pinker's wry comment: "Every student of political science is taught that political ideologies are based on theories of human nature. Why must they be based on theories that are three hundred years out of date?"¹⁷

Nevertheless, while some introductory texts on political philosophy (such as Wolff's) might continue to debate out-dated theories of human nature or to simply overlook the issue, other social theorists do accept the possible relevance of Darwinian theory to our understanding of modern human social behaviour. In *Ten Theories of Human Nature*, for instance, Leslie Stevenson posits three possible positions on whether "there is some 'true' or 'innate' nature of human beings and some objective value for human life":

Are we essentially products of evolution, programmed to pursue our self-interest, to reproduce our genes, or fulfil our biological drives? Or, is there no such 'essential' human nature, only a capacity to be moulded by society and its economic, political, and cultural forces? Or, is there some transcendent, objective (perhaps divine?) purpose for human lives and human history?¹⁸

Here, Stevenson presents these as open questions – and, in contrast to the opinion of evolutionary-minded scholars such as Dawkins, Pinker and Singer, he considers it worthwhile to seek answers in the non-scientific theories of the human condition provided by Confucianism, Hinduism and Christianity, or in the works of Plato, Aristotle, Kant, Marx, Freud and Sartre. Nevertheless, when he eventually turns to 'Darwinian theories of human nature', Stevenson acknowledges that some people might question the value of giving so much attention to the speculative philosophical and religious theories of the past: "Now that science has established itself as the proper way of understanding everything in the living world, including living beings like ourselves, should we not look to the methods of science to find out the truth about human nature?"¹⁹

Initially, this would appear akin to the point made by Singer above – that we should perhaps place a question mark over speculation or theorising about human nature made in ignorance of modern Darwinian science. Moreover, if science can indeed reveal the truth about ourselves, this would allow us to decide which of Stevenson's initial three positions on human nature is most likely correct: that is,

whether our behaviour is determined (or at least heavily influenced) by our genes, by our culture, or by some transcendent or divine ‘will’.

It is therefore worthwhile examining how Stevenson answers the question that he himself poses: why not simply turn to science to find out the truth about our nature? Indeed, if modern science does provide the only accurate account of human nature, it potentially renders the bulk of Stevenson’s own enquiry into different theories of human nature redundant – in addition, of course, to the theories themselves.

In actual fact, Stevenson avoids addressing the possibility of a scientifically accurate (or ‘true’) account of our nature by defining a theory of human nature as one that would specifically “offer some sort of diagnosis and prescription for human problems”.²⁰ In this way, Stevenson is able to argue that “when would-be scientists of human nature offer their secular schemes of salvation – or at least of progress – their claims go beyond empirical science and tend to be just as controversial as those of other ‘theories’ [i.e., those offered by Plato or Marx or Freud, or Confucianism, and so on]”.²¹

Thus, far from ditching pre-Darwinian beliefs (as, say, Dawkins recommends), Stevenson concludes his assessment of modern Darwinian theories of human nature by claiming that our view of ourselves, and our sense of the ‘light’ and ‘dark’ sides of our nature, still “needs to be inspired and educated by the great religious and philosophical thought systems of the past”.²²

Here, however, Stevenson is switching the focus from empirical or factual claims about what human nature *is* to normative claims about what we *ought* to do. That is, while he may indeed be correct that the normative beliefs of would-be scientists of human nature can be as controversial as any other belief system, this says nothing about the factual worth (or worthlessness) of any purely descriptive theory of human nature. This simply skirts the challenge posed by evolutionary science: that it may lead us to conclude that the great theories of the past are indeed based on ignorance or just plain wrong.

Despite the sort of equivocal argument exemplified here by Stevenson, evolutionary science does indeed provide a serious threat to all other theories of our nature, including these theories’ ‘diagnosis and prescription’ of the problems we may face. In other words, if the diagnostics and prescriptions of any particular theory are predicated on a view of our nature that is incompatible with what modern evolutionary science tells us, then we have good grounds for rejecting (or, at the very least, being sceptical of) that theory’s recommendations about human life or behaviour.²³

Furthermore, by obscuring the point that a normative theory of what we *ought* to do must be based on a plausible descriptive theory about how things actually *are*, Stevenson exaggerates the ongoing relevance of the great religions and philosophies of the past for those who otherwise accept a scientific Darwinian account of our origins. Instead, the importance of these historical systems of thought to our understanding of human nature can only be assessed in light of the facts that evolutionary theory can provide.

This is the approach Peter Singer adopts in respect of Marx; that is, while rejecting Marx's theory of history (and the view of a malleable human nature that it is based upon), Singer does not advocate a complete rejection of Marxist ideas, which have had an immense influence on our social theories:

In directing our attention to the links between a society's economic base and its laws, religion, politics, philosophy and culture generally, Marx shattered the illusion of the independence of ideas and culture, and opened up new and very fruitful areas of research. We should not abandon Marx's insight, but we should make it part of a much larger picture.²⁴

Here, Singer accepts that changes in the 'mode of production' do indeed affect a society's dominant ideas and culture, but he argues that they do not change everything; certain aspects of human nature remain constant. A more sophisticated, evolutionary-informed account of social behaviour and organisation, therefore, "[would] recognise that the way in which the mode of production influences our ideas, our politics, and our consciousness is through the specific features of our biological inheritance."²⁵

Marxist ideas, in other words, need to be revised in light of what modern evolutionary theory can tell us about human nature. This sort of argument could then extend to all other non-evolutionary theories of human existence – that, for example, we need not abandon the useful perspectives on the human condition offered by the likes of Confucius or Jesus, or Kant or Freud, but rather, by revising that which is incompatible with 'the specific features of our biological inheritance', we should fit the ideas of the great figures of the past into the framework (or larger picture) provided by a Darwinian account of our nature.

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The brief analysis of introductory texts in the preceding sections indicates that the relevance of ETOHN is under-appreciated within modern political philosophy or, even when acknowledged, that the wider implications are inadequately explored. Indeed, there is a further potential problem with traditional approaches to political theory: how much we can or should rely on rational introspection.

In his *Contemporary Political Philosophy: An introduction*, for example, philosopher Will Kymlicka discusses the criteria by which 'success' in the enterprise of political philosophy is assessed. In Kymlicka's view, "the ultimate test of a theory of justice is that it cohere with, and help illuminate, our considered convictions of justice":

If on reflection we share the intuition that slavery is unjust, then this is a powerful objection to a proposed theory of justice that it supports slavery. Conversely, if a theory of justice matches our considered intuitions, and

structures them so as to bring out their internal logic, then we have a powerful argument in favour of that theory.²⁶

Kymlicka accepts the possibility that these intuitions may be baseless, and that many political philosophies are defended “without any appeal to our intuitive sense of right and wrong” – nevertheless, in Kymlicka’s view, there does not seem to be any other plausible method of proceeding: “the fact is that we do have an intuitive sense of right and wrong, and it is natural, indeed unavoidable, that we try to work out its implications”.²⁷

In his *Darwinian Conservatism*, political scientist Larry Arnhart makes a similar claim (although here based explicitly on the belief that our moral intuitions are a feature of evolved human nature): “Despite the variability in our moral judgements in different circumstances, enduring standards of right and wrong are rooted in our natural instincts.”²⁸ Arnhart’s attempt to derive political values from the (supposed) facts of an evolved human nature will be examined in a later chapter; the relevant question here, however, is how much trust we should place on ‘convictions’ or ‘intuitions’ when it comes to our political theories or beliefs – whether, for example, we should accept Arnhart’s (conservative) claim that “emotional recoil at the thought of infanticide, for example, is one way that we know it is immoral”.²⁹

Ethicist Julian Savulescu provides an alternative evolutionary perspective on this issue. While accepting that many of our intuitive beliefs may indeed arise from our evolved psychology, Savulescu nevertheless questions their appropriateness to modern moral decision-making. For instance, our intuitive feelings of disgust – the so-called ‘Yuk! reactions’ – in response to practices such as cannibalism or incest or infanticide have possibly been “evolutionarily programmed in order to protect us from toxins or adverse situations”:

For example, the revulsion to incest has a very good biological reason; you’re much more likely to have a genetically abnormal child with a relative. So, many of the taboos have a strong biological basis; if you like, a quasi-rational basis. Some of them embody a kind of intuitive social form of knowledge, of practices that we’ve found in the past to be disadvantageous to human beings.³⁰

The point here is that while there may be good evolutionary reasons for our Yuk! reactions, they may now ‘misfire’ in situations that are no longer disadvantageous to us – for instance, in intuitive negative responses to the idea of human genetic engineering, say, or of creating embryos for stem cell research. According to Savulescu, our Yuk! reactions “are very crude rules of thumb that have served us in our primitive past, but are simply ill-equipped to deal with complexities and the nuances of particular situations in today’s life.”³¹

Moreover, these Yuk! reactions form only a particularly obvious sub-set of possible evolved psychological traits that may have proved advantageous in the past. If we extend this line of reasoning, therefore, we might predict other evolved

psychological influences on our behaviour – most especially with behaviour that impacted on past survival or reproduction, such as our attitudes to sex, or towards kin or members of our social group.

The possibility of evolved ‘intuitions’ or evolved biases on our thinking, therefore, has implications for Will Kymlicka’s claim that political reasoning must ultimately begin with the fact of an ‘intuitive sense of right and wrong’: at the very least, it suggests that we would need to take this into account whenever we turn to intuition to help in our political thinking. And this is especially relevant to some of the contemporary political theories that Kymlicka himself examines – for example, multiculturalism, communitarianism and feminism. As Darwinian reasoning would predict the existence of evolved biases in our attitudes to sex or sexual relations, or to group membership, these could very possibly influence our thinking about members of other ethnic or cultural communities, or members of the other sex.

According to Julian Savulescu, “The challenge of modern ethics today is not simply to sit with our intuitions, because our intuitions are not necessarily reliable guides to what we should do”.³² This is very much in line with Singer’s wider political point in *A Darwinian Left*: that if we understand the undesirable aspects of our evolved nature, we will be in a better position to design policies to mitigate their effects (at the same time, of course, as promoting the desirable pro-social aspects of our nature).

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While it is as yet unclear how much of an impact modern Darwinian theory may have on political philosophy were it to be taken seriously, the current situation is difficult to defend. How can we continue to base political debate on views of human nature that are centuries out of date, that have been constructed from the imaginations of armchair theorists, or that appeal to intuitions as the ultimate basis of our political judgements without asking how and why those intuitions may have arisen in the first place?

In respect of the left’s ideas about human nature, leftist theorists have often struggled with what rightists would argue is the reality of ‘human nature’. For example, rightists can claim that consumer capitalism simply reflects self-interested human nature: and when leftists deny this, rightists can point to the hordes of people who descend on shopping malls each day, not just in the West, but also in emerging economies like China, India and Brazil. The problem here is the disconnect between what leftist theory says about human nature and what we observe in people’s actual behaviour.

One option for the left here could be to invoke something like the Marxist concept of ‘false consciousness’: to claim, for instance, that people are actually deluded in their beliefs or in their actions. But such a move smacks more of explaining away unwelcome evidence than explaining it. And, ultimately, the credibility of leftist prescriptions for a more egalitarian society will be undermined

the less its theories match up with what people observe of others' behaviour in everyday life.

The point is that the left's denial of these obvious human traits concedes the high ground to the simplistic rightist claim that the facts of human nature warrant, say, a capitalism society. It doesn't. While capitalism very successfully targets certain aspects of our nature, this is not to say that these are the only features of our nature, nor, indeed, that they are the most important for a flourishing society. In many respects, capitalism corrodes those aspects of our social nature, such as cooperation and altruism, that the left quite rightly believe are essential to worthwhile human lives.

Yet if the left were to adopt a realistic account of human nature, warts and all (as Singer advocates), they can challenge the rightists' skewed vision of what human beings are actually like. And by being aware of traits that may hinder its social goals, the left will be better able to design policies to overcome them. The left's core values will remain the same but its theory will more realistically match what is achievable in practice – and, importantly, its theories will be more credible in the eyes of those who may be searching for a viable alternative to seemingly all-pervasive capitalism.

Furthermore, it should be clear from the discussion above why Singer dismisses the need for a detailed philosophical justification of egalitarianism in *A Darwinian Left*.³³ After all, there appears little point in working out the fine details of an ideal egalitarian society if this is not a society in which real living human beings can flourish.

Unfortunately, modern leftists, in common with their political brethren briefly examined in this chapter, often fail to recognise the relevance of human evolution to our modern social behaviour. Indeed, many leftists are openly opposed to applying Darwinian reasoning to human society and politics. The following chapters will examine why this is the case, and whether (especially given historical precedent) leftists have good grounds for being suspicious of modern evolutionary theories of human nature.

It is true that every social idea justified by reference to Darwin predated his work, and that many who invoked him lacked a firm grasp of his views. Darwinism's main contribution to social theory has been to popularise certain catchwords.

Diane Paul, *Darwin, social Darwinism and eugenics*

Chapter 3: Swapping Marx for Darwin?

According to philosopher and historian Jean Gayon, modern biologists have compelling reasons to avoid associating their work with Darwin's:

Among other things, neo-liberal economics, social Darwinism, racial anthropology, [and] Nazi ideology ... had strong interactions with Darwinism in the first century of its history. Likewise, in more recent times, sociobiology (in its more ideological forms), American liberalism and the European right-wing have been more thoroughly committed to Darwinism than their opponents.¹

Gayon's point is that Darwinism is not simply a scientific theory but that "it also belongs to cultural and political history".

This (negative) cultural and political history is also alluded to in philosopher Raymond Tallis' critique of 'Darwinitis' – the "grotesquely simplified" account of human existence that, he believes, is provided by modern sociobiology and evolutionary psychology. According to Tallis, "Darwinitis might seem a harmless idiom but harmless idioms have a habit, as the 20th century told us, of turning from fluffy little puppies into Rottweilers with sharpened teeth that may shred their owners to death."²

Tallis' Rottweilers, of course, equate to the social Darwinism, Nazi racial biology and other odious aspects of evolutionary theory's political past that are emphasised by the likes of Jean Gayon. Significantly, these historical political associations are all right-wing (with Gayon himself implying that sociobiology, in its 'more ideological forms', is also to the right of the political spectrum).

Indeed, ever since the emergence of sociobiology, leftists have emphasised the apparent links between modern Darwinist thinking and right-wing political beliefs. In one (in)famous early critique of E.O. Wilson's *Sociobiology*, for example, Wilson's ideas were equated with earlier pseudo-scientific theories about class, race and sex, and to the political ideology that eventually "led to the establishment of gas chambers in Nazi Germany"³. Similarly, in their influential *Not in Our Genes*, left-leaning scientists Steven Rose, Richard Lewontin and Leon Kamin highlight how conservative politicians have used purported "biological facts" to oppose equal working rights for women⁴, and how the British National Front has justified its racist beliefs as being "a product of our 'selfish genes'".⁵

From a purely logical perspective, of course, any apparent social or political connotations of Darwinism would be irrelevant to its status as a scientific theory. This relates to the crucial distinction that Peter Singer draws between (evolutionary) facts and (political) values – the claim that we cannot deduce what we *ought* to do from

what Darwinian science may reveal about what human nature actually *is* like. Singer argues that Darwinian thinking cannot tell us whether particular social policies or political beliefs are right or wrong: “Instead it leaves the ethical decision up to us, merely offering to provide information relevant to that decision.”⁶

An unfortunate feature of Darwinism’s political past, however, is that many political theorists – particularly on the right – have been more than willing to draw moral conclusions from Darwinian evolution: for example, as Singer points out, using Darwin’s theory “as an ethical justification of the right of the strong to trample over the weak”.⁷

Yet while the right clearly commits a logical fallacy in this belief that *is* justifies *ought*, the left’s response to this erroneous reasoning is, according to Singer, similarly at fault:

The left’s understandable but unfortunate mistake in relation to Darwinian thinking has been to accept the assumptions of the right, starting with the idea that the Darwinian struggle for existence corresponds to the vision of nature suggested by Tennyson’s memorable (and pre-Darwinian) phrase, ‘nature red in tooth and claw’. From this position it seemed only too clear that if Darwinism applies to human social behaviour, then a competitive marketplace is somehow justified, or shown to be ‘natural’ or inevitable.⁸

Has the left, then, simply made an ‘unfortunate’ mistake in its stance on Darwinism? Furthermore, if egalitarians were not swayed into rejecting Darwinism by the fallacious arguments of the right, but instead drew a more critical distinction between evolutionary facts and political values, could Darwinian theory indeed provide a source of new ideas and inspiration for the left?

In this chapter, I examine the tendency by many Darwinists, especially in the past, to derive political arguments from the facts (or purported facts) of human evolution. I then turn to leftist criticisms of Darwinism, beginning with those of Marx himself, and examine how this has resulted, at an extreme, in a relativist rejection of the possibility of objective scientific ‘truth’. Here, I argue that relativist (or ‘postmodernist’) interpretations of Darwinian theory are themselves misguided. Next, I examine the assumption highlighted above that Darwinism is inherently right-wing, and suggest that this, too, is an erroneous view. Drawing together these earlier arguments, I conclude that much of the left’s contemporary opposition to ETOHN is based on misunderstanding or misrepresentation of what modern Darwinism actually implies about human social organisation and behaviour.

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Karl Marx, while readily embracing Darwinism as a credible scientific alternative to teleological beliefs about society, was nevertheless critical of the way in which the theory of natural selection apparently reflected its author’s *laissez faire* cultural background. In a letter to his collaborator and friend Friedrich Engels, for example,

Marx noted: “It is remarkable how Darwin recognises among beasts and plants his English society with its division of labour, competition, opening up of new markets, ‘inventions’, and the Malthusian ‘struggle for existence’. It is Hobbes’ ‘bellum omnium contra omnes’ [‘the war of all against all’].”⁹

Engels himself then further developed Marx’s critique of evolutionary theory by arguing that Darwinists perform a “conjuring trick” in which their social theories are applied to nature, then “the same theories are transferred back again from organic nature into history, and it is now claimed that their validity as eternal laws of human society has been proved”.¹⁰

This has become the classic Marxist (and wider leftist) attitude to Darwinism, at least in a human context: that when evolutionary theory is applied to society, it is largely a process by which entrenched political ideas (about competition, say, or hierarchy) are read into nature, and then read back from nature to justify the original political beliefs – the naturalness of dog-eat-dog capitalism or colonial expansion, say, or the unnaturalness of social welfare or of egalitarian or socialist reform.

Historian Robert Young, for example, provides a Marxist interpretation of the way in which new evolutionary ideas came to replace established theological beliefs during the Industrial Revolution: that this was simply the change from “a theory suitable for a pastoral, agrarian, aristocratic world” to a belief system “which reflects a competitive, urban, industrial one” – that is, “the substitution of one form of rationalisation of the hierarchical relations among people for another”.¹¹

The influence of this (Marxist) attitude to Darwinism is also reflected by sociologist Ann Oakley, who, in *Gender on Planet Earth*, argues: “Natural selection was ‘genetic capitalism’, the biological version of economic competition, the representation of the living world ... as a capitalist financial balance sheet; Adam Smith’s theories about selfish, profiteering men in cities writ large on the landscape of Mother Earth.”¹²

Beginning with Marx, therefore, the charge against Darwinism is that, most especially where it relates to humans, evolutionary theory does not necessarily reflect a ‘truth’ about the world; rather, it merely mirrors the pre-existing beliefs and biases of Darwinists themselves. As a modern example, in a chapter entitled ‘Delusional Systems’, Anne Oakley focuses on the (supposed) socio-cultural background of evolutionary scientists when she derides the biological theory of ‘sperm competition’.¹³ According to Oakley: “In mainstream SB/EP [sociobiology/evolutionary psychology], the free market system combines with the gonadal preoccupation to produce the notion of ‘sperm competition’, and with militaristic ideology to give the aggressively entertaining idea of ‘sperm wars’.”¹⁴

In Oakley’s interpretation, therefore, the concept of sperm competition, as with other aspects of Darwinism’s ‘delusional system’, is not objective; it arises, not from empirical observations of the world, but from the competitive sexual obsessions of its male theorists.

Similar attitudes towards science – say, that it is a social ‘construct’, reflecting the pre-existing values or beliefs of its practitioners – are a feature of many leftist criticisms of ETOHN. It is therefore important to examine this influential

epistemological position (epitomised by the Marxist critique of natural selection above) in more detail.

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Socialist feminist Alison Jagger provides a clear exposition of classic Marxist epistemology: the claim that “all systems of conceptualisation reflect certain social interests and values”.

In a society where the production of knowledge is controlled by a certain class, the knowledge produced will reflect the interests and values of that class. In other words, in class societies the prevailing knowledge and science interpret reality from the standpoint of the ruling class.¹⁵

Jagger goes on to suggest that the ruling classes’ interpretation of social reality is distorted because they do not experience the suffering of those they exploit; as a result, she argues, the exploited have an “epistemologically advantageous position” – a standpoint that “provides the basis for a view of reality that is more impartial than that of the ruling class and also more comprehensive”.¹⁶

Jagger then logically extends this traditional Marxist argument into a ‘socialist feminist’ one: the claim that, because “women suffer a special form of oppression and exploitation”, women too will have a distinctive epistemological perspective. “From this standpoint,” Jagger concludes, “it is possible to gain a less biased and more comprehensive view of reality than that provided either by established bourgeois science or by the male-dominated leftist alternatives to it.”¹⁷

Here, Jagger neatly illustrates an extreme relativist perspective on science: the view that established science (including Darwinian science), far from providing an accurate account of the natural world, simply reflects the social values of its practitioners. Indeed, this emphasis on the social matrix of science has led some sections of the left towards various forms of relativism, which, at an extreme, takes knowledge and truth to exist only in relation to a cultural, social or historical context.

Ironically, however, this relativist refutation of science is itself open to ‘relativist’ criticism. For example, according to the logic of this approach to epistemology, *all* systems of conceptualisation reflect certain social interests and values; therefore, it is not at all clear why, in the case of class differences, the experience of exploitation or oppression provides a *less* distorted view of reality. (Indeed, given that privilege may expose the ruling classes to a wider range of experiences, why would this not result in a *more* comprehensive view of reality?)

Ultimately, if we follow the Marxist approach to epistemology to its logical conclusion, all ‘factual’ beliefs could be dismissed as mere distortions arising from a particular social context. And this demonstrates the ultimate incoherence of extreme forms of relativism: that is, the argument that ‘truth’ or ‘reality’ is nothing more than a socially-mediated distortion would itself be a socially-mediated distortion, one with

no more claim to ‘truth’ or ‘reality’ than the position it opposes. By its own logic, in other words, extreme relativism is not ‘true’, because ‘truth’ is only ever relative.

However, despite the ironic contradictions of relativism (for example, its objective claim that there is no objective truth to objective claims), it appears to have attracted many on the left – a tendency that, according to left-leaning physicist Alan Sokal, marks “a profound historical volte-face”.¹⁸

Ever since the Enlightenment, Sokal argues, the left has used rational scientific thought and analysis to combat obscurantism and “the mystifications promoted by the powerful”.

The recent turn of many ‘progressive’ or ‘leftist’ academic humanists and social scientists toward one or another form of epistemic relativism betrays this worthy heritage and undermines the already fragile prospects for progressive social critique. Theorizing about ‘the social construction of reality’ won’t help us find an effective treatment for AIDS or devise strategies for preventing global warming. Nor can we combat false ideas in history, sociology, economics, and politics if we reject the notions of truth and falsity.¹⁹

In a similar vein, Richard Dawkins indicates some of the absurdities to which relativism has (apparently) led. For example, Dawkins mocks a relativist claim that the “sexed equation” $E = mc^2$ “privileges the speed of light over other speeds that are vitally necessary to us”, or the assertion that (male-dominated) science has difficulty with fluid hydraulics because of the male preoccupation with rigidity.²⁰

Interestingly, Anne Oakley also endorses Sokal’s criticism of the ‘postmodern’ relativism apparent amongst many academic leftists. According to Oakley, despite the fact that science and scientists can often be biased, science nevertheless provides “a set of systematic and explicit practices, whose emphasis on experiment and verification offers the best safeguard there is against ideological bias”.²¹ She goes on to argue: “French philosophy, the first major repository of intellectual postmodernism has a lot to say about scientific ideas and terminology. However, most of it misunderstands, confuses, jargonizes or otherwise misrepresents what scientists have done or are trying to do”.

Given Marx’s relativist critique of a society’s systems of belief (including Darwinism), it is understandable that the political left has been influenced by relativist and by related postmodernist ideas. Yet as ‘the left’ are the very group that Peter Singer insists must take Darwinism seriously, it is necessary to examine the extent to which relativist or postmodern influences are evident in contemporary critiques of ETOHN.

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Surprisingly, in light of her defence of science, Anne Oakley’s discussion of Darwinian biology commits many of the postmodernist offences that she herself

warns against. For example, immediately preceding her claim that the theory of natural selection is simply “genetic capitalism”, Oakley states:

Once it was called eugenics, then sociobiology, now it’s rebranded as evolutionary psychology, though there are disputes about whether these last two are the same animal. Close to the beginning of it all, an ‘amiable but rather aimless’ young man called Charles Darwin spent five years on a ship called HMS Beagle, scribbling some observations about evolution in a small red notebook.²²

Here, Oakley’s unwarranted conflation of eugenics and sociobiology is perhaps the least objectionable of these claims; it is her cavalier dismissal of Darwin and his evolutionary theories (i.e., those that provide the foundation of modern biological science) that is most staggering.

Indeed, Oakley’s subsequent analysis of modern ETOHN provides a case study of those who ‘misunderstand, confuse, jargonize or otherwise misrepresent’ what evolutionary scientists have done or are trying to do. For instance, and in addition to her questionable interpretation of ‘sperm competition’, Oakley defines the Darwinian concept of sexual selection as “a subspecies of natural selection”, and claims: “Sexual selection says that men’s genetic interests are served by having as much sex with as many fertile women as possible, so as to spread their genes as far as possible, while women’s reproductive chances are enhanced by finding successful, resource-rich mates with good genes to look after them while they have babies.”²³

But this is *not* what sexual selection ‘says’. In brief, Darwin introduced the concept of sexual selection to account for characteristics, such as the peacock’s tail, that would not likely have arisen through natural selection. In this classic example, the peacock’s tail is an apparent hindrance in the ‘struggle for existence’; nevertheless, by attracting peahens, it aids the peacock in reproducing. Sexual selection thus focuses on reproduction in a broad sense, not simply on ‘sex’ as Oakley seems to think.

Here, Oakley appears to have confused sexual selection with the theory of parental investment, which she then proceeds to ‘analyse’.²⁴ Referencing behavioural ecologist Sarah Hrdy, Oakley comments: “It seems that male sex hormones are associated with something called ‘symmetry’, which women go for, though it’s not clear why, because ‘symmetrical’ men have sex earlier with more partners and invest less in romantic relationships than their non-symmetrical counterparts.”²⁵

It is instructive to examine what Hrdy herself actually says about ‘this something called’ symmetry. On the page to which Oakley refers, Hrdy describes how “environmental insults” that interfere with an organism’s development (parasites, diseases, food shortages, and the like) are assumed to cause lopsidedness in an otherwise symmetrical body plan – that is, “small, random deviations from perfect bilateral agreement in what should be perfectly symmetrical traits” (such as peacock plumage, scorpionfly wings, or corresponding sides of the human face).²⁶ Such ‘fluctuating asymmetries’ are therefore a potential indication of how an individual organism has coped with environmentally induced stress.

According to Hrdy, the degree of fluctuating asymmetry in a range of organisms, *including humans*, can correlate with body size, freedom from parasites, and success in competition for resources or mates:

In short, the brightest, most ornamented or symmetrical males are likely to be those best suited to prosper in the environment where they grew up or developed breeding plumage. For females who don't have the option of running lab tests on potential fathers, such up-to-the-minute indices of physical condition provides the next best thing.²⁷

Hrdy goes on to acknowledge that, despite ever more data on human fluctuating asymmetries, we still do not know exactly how these asymmetries are registered by observers, nor how important they actually are in human mate choices. Nevertheless, the evidence suggests that humans are able to register barely perceptible signs of others' physical condition and self-confidence.

This comparison of Oakley's sceptical analysis of evolutionary theory and what evolutionary theorists actually say is significant because Oakley is not simply an obscure academic: she is a Professor of Sociology and Social Policy, and Director of the Social Science Research Unit at the University of London. The point is, then, that if Oakley so blatantly misunderstands (or misrepresents) these Darwinian ideas, what are we to make of her extended critique of other aspects of modern evolutionary theory? How can we trust what she has to say? And, perhaps more importantly, what impact will this have on the attitudes towards modern ETOHN of those academics and students who read her work?

Indeed, similar (if not always as blatantly dismissive) beliefs about evolutionary biology appear reflective of the mainstream paradigm within many of the social sciences.²⁸ One common feature of these criticisms is the belief that ETOHN present untestable hypotheses or, as sociologist Michael Kimmel suggests, "assume that only one interpretation is possible from the evidence".²⁹

For instance, Kimmel, also a Professor of Sociology, examines the question of why parents "would 'invest' so much time and energy in their children when they could be out having a good time". In proposing an alternative to the (supposed) sociobiological claim that "we are 'hard-wired' for such altruistic behaviour, because our children are the repository of our genetic material", Kimmel suggests instead that "it may be simple economic calculation: In return for taking care of our offspring when they are young and dependent, we expect them to take care of us when we are old and dependent – a far more compact and tidy explanation."³⁰

Is this, though, really 'a far more compact and tidy explanation' for why parents care for their children? For a start, Kimmel's argument would mean that human parental care is qualitatively different from similar behaviour in other animal species that also care for their young but are unable to make such economic calculations (or, indeed, benefit from them in old age). Yet if Kimmel is correct, then at some stage during human evolution, our species switched from the sort of instinctive or 'hard-wired' parental behaviour of our more animal-like ancestors to the

rational, consciously ‘calculating’ form of behaviour that (he claims) is the case today. Providing an explanation for how this may have occurred would be anything but ‘compact’.

Furthermore, Kimmel’s explanation for parenting behaviour can itself be empirically tested using the standard methods of sociology: observations of the relevant human social behaviour, interviews with parents, and the like. (Speaking as a parent, and having observed other parents’ behaviour, I would reject Kimmel’s explanation on anecdotal grounds: an explicit economic calculation, I would suggest, is not the reason why most parents care for their children.)

To be blunt: Kimmel does not provide a very credible alternative to the idea that humans may have evolved predispositions for parental behaviour; rather, he assumes that the evolutionary hypotheses can simply be countered with any ‘plausible’ counter argument, without further examination of the evidence supporting either position. (Indeed, Kimmel’s perfunctory dismissal of the empirical basis of ‘parental investment’ is akin to Oakley’s similar disregard for the mass of evidence supporting the theories of ‘sperm competition’ or ‘fluctuating asymmetries’.)

Fellow sociologist Hilary Lips, meanwhile, argues that it is difficult to verify the Darwinian “assumption of greater investment by females in producing eggs and gestating embryos than by males in producing sperm”.³¹ Lips instead refutes this idea with the rhetorical question: “How does one quantify the amount of energy involved in the production of a lifetime supply of seminal fluid and sperm, for instance?” Here, Lips apparently assumes that there is no empirical way to calculate the energy costs of pregnancy or of sperm production, when this is clearly not the case.

Similarly, Anne Oakley uses a rhetorical question to highlight a ‘problem’ with a related aspect of modern ETOHN – the concept of kin selection (i.e., that organisms favour their genetic relatives). “Without a shared instinct for mathematics,” Oakley suggests, “how could anyone compute the coefficients of consanguinity needed to support kin selection theory?”³² Evolutionary psychologist Steven Pinker provides a wry (and withering) response to this oft-expressed criticism of kin selection: that it is like claiming that “people can’t see in depth, because most cultures haven’t worked out the trigonometry that underlies stereoscopic vision.”³³

Importantly, if the attitudes towards evolutionary science briefly highlighted above are at all indicative of the paradigm within disciplines such as sociology and gender studies, then ETOHN are likely to be ignored or dismissed by many social scientists and, moreover, evolutionary ideas are unlikely to be incorporated into (potentially) relevant areas of social science research. In relation to egalitarian political ideals, and as Singer himself makes clear, if the left deliberately blinds itself to the possibility of evolved influences on our behaviour, then it may also remain blind to (potentially avoidable) obstacles to its egalitarian goals.³⁴

In its more extreme forms, the contemporary left’s dismissal of ETOHN on relativist grounds (or through an ill-informed scepticism about the scientific validity of evolutionary concepts) appears to be misguided. At the same time, however, it is obvious that unacknowledged social biases *have* been a feature of Darwinism – both as regards the substance of the scientific theory itself and on how it has been

perceived in a wider social context. Darwin's own work, for example, is replete with the social snobbery of an upper middle class Victorian English gentleman (especially in his descriptions of women, the lower classes, and other races).

Thus, even if we were to reject the extreme 'epistemic relativism' that characterises some leftist critiques of evolutionary theory, how should we deal with the clear evidence of past bias in Darwinian theory?

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Sarah Hrdy notes that many women have long been aware of male bias within science, particularly biology. According to Hrdy, this critical view of biology, which is taught in many university courses today, serves to "reinforce the alienation many women, especially feminists, feel towards evolutionary theory".³⁵ (A brief analysis of introductory texts to gender studies supports Hrdy's claim about feminist attitudes to biology: of the six books examined³⁶, five were critical of modern ETOHN, and three extremely so.)

Gender scientist Anne Fausto-Sterling similarly highlights the fact of this gender bias in biology, most especially male biologists' traditional beliefs about sex differences. Fausto-Sterling argues that it was only after increasing numbers of women entered the discipline in the 1970s, and particularly the field of animal behaviour, that the real nature of sexual relationships and male-female behaviour was recognised.

According to Fausto-Sterling, these researchers, armed with a new feminist perspective on the world, soon demonstrated that female animals actively create their own social environments – a conclusion that ran contrary to established beliefs about female passivity. Fausto-Sterling goes on to ask why earlier observers failed to recognise this, and suggests: "It is possible their a priori notions about sex roles hindered their ability to observe. It was not the feminists who were blind to the scientific truth. Rather, their male-biased predecessors made one-sided accounts of sex difference."³⁷ (Oakley, commenting on the same example, provides the relativist suggestion that "it simply depends on who's doing the observing".³⁸)

Significantly, Sarah Hrdy (one of the very women who entered the field of animal behaviour in the 1970s) provides a different perspective on men's and women's approach to her discipline: "Although male and female researchers do science in the same way, they may be attracted to different problems."³⁹ One consequence of women's input into biological research was, as Fausto-Sterling also points out, that the importance of female behaviour was soon recognised – but this, according to Hrdy, then motivated male scientists to correct the "inadvertent machismo" of their discipline.⁴⁰ As she notes in the preface to *Mother Nature*:

Unlike superstition or religious faith, a good scientist's underlying assumptions are subject to continuous challenge. Sooner or later in science, wrong assumptions get revised. Nevertheless, some take longer to get

corrected than others, as was the case with overly narrow stereotypes about women.⁴¹

In Hrdy's field of behavioural ecology, then, the bias of one set of scientists (those with a male-centred outlook) was eventually revised due to insights from another set of scientists (those with a feminist bias) – a process that, according to historian of science David Hull, is a ubiquitous feature of scientific enquiry: “The self-correction so important in science does not depend on scientists presenting unbiased results but on other scientists, with different biases, checking them.”⁴²

Thus, critics such as Fausto-Sterling are quite justified in indicating the bias of past Darwinian accounts of human behaviour. However, these criticisms are less justifiable to the extent that they imply that contemporary theories are incapable of recognising or addressing prejudiced assumptions. Hrdy, by contrast, provides a more balanced approach to the evidence of male bias in biology, using it to highlight how our knowledge of human sexual behaviour has deepened and broadened over time – for instance, as in her own experience, how different biases and perspectives have helped to overturn erroneous assumptions, and how this has itself led to an enhanced understanding of the natural world and of humanity's place within it.

The evidence of bias in biology, and more especially human biology, therefore, is not in itself a reason to reject the science in its entirety (as some on the left have been wont to do). To dismiss Darwinian science as irrevocably biased by its socio-cultural context is to erroneously assume that science has no self-corrective mechanisms or practices. Yet, as Anne Oakley herself suggests, science's emphasis on experiment and verification offers the best safeguard there is against such ideological bias.

The (Marxist) emphasis on the socio-cultural environment within which scientific beliefs are developed is an important means to reveal possible biases within scientific theories. Nevertheless, in the case of leftist attitudes towards ETOHN, the influence of Marxist, relativist or postmodern ideas, even if not taken to the absurd extremes highlighted by Dawkins above, appears to have resulted in a great deal of scepticism – and, most especially, to the belief that Darwinian explanations for human social behaviour invariably reflect the political prejudices of Darwinists themselves. One result is the apparent misrepresentation of modern ETOHN in mainstream social science.

Be this as it may, are there not still other grounds for the left to be suspicious of ETOHN? For example, even if we accept Singer's claim that the left have made an understandable but unfortunate mistake in relation to Darwin, why is it that Darwinian ideas appear far more attractive to the political right than to the left; say, to the neo-liberal economists, Social Darwinists, racial anthropologists, Nazi ideologues, and modern right-wing extremists mentioned by Jean Gayon above?

Here, I turn to another element of the leftist opposition to ETOHN: the idea that Darwinism is inherently right-wing.

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Of course, and to repeat the point made at the beginning of this chapter, it is nonsensical to ask about the political ‘nature’ of Darwinism: the scientific theory of evolution carries no political loading whatsoever, it just is. Nonetheless, it is understandable why many people have assumed that Darwinian theory has rightist implications.

For example, because Darwin’s original notions of struggle and competition in nature were derived in large part from laissez-faire economics, it is not surprising that many rightists readily accepted ‘Darwinian’ justifications for their pre-existing political beliefs – nor why the left, following Marx, so readily rejected them.

Or rather, this is not surprising given the benefit of hindsight. That is, one of the key elements of Darwinism’s social and political matrix is its odious history: any modern appraisal of evolutionary theory (at least, in respect of human social behaviour) is therefore likely to be filtered through a historical lens of awareness about the horrific excesses that were later justified with reference to Darwin. Our modern view of Darwinism, in other words, is likely to be influenced by knowledge about how it was misused; and the fact that much of this political misuse occurred in the name of right-wing ideologies, such as Nazism, potentially colours our view of its political implications (i.e., causing us to assume that it is inherently right-wing or conservative).

What is often overlooked is that many left-wing political beliefs, at least before World War II, were also bolstered by Darwinian (or pseudo-Darwinian) arguments. According to Diane Paul, for example: “Darwin’s followers found in his ambiguities legitimation for whatever they favoured: laissez-faire capitalism, certainly, but also liberal reform, anarchism and socialism; colonial conquest, war and patriarchy, but also anti-imperialism, peace and feminism.”⁴³

For instance, the socialist co-discoverer of natural selection, Alfred Russel Wallace, argued that human evolution would ultimately favour the spread of rationality and altruism. For Wallace, given that culture and technology had apparently eased many of the physical pressures on human evolution, natural selection would instead focus increasingly on mental qualities, such as the capacity to behave cooperatively and morally with members of one’s own group. Those groups whose members had these qualities, he believed, would flourish at the expense of those lacking them.⁴⁴

Similarly, the eugenics movement, now most often associated with the extreme right, was originally a cause favoured by many on the progressive left: wider social good, it was believed, could be achieved through government intervention in human reproduction, informed by a Darwinian understanding of sexual behaviour. As Paul notes: “To those who had faith in disinterested expertise and the virtues of state planning, control of breeding seemed only common sense.”⁴⁵ Steven Pinker argues the same point – that for much of the 20th century eugenics was a favoured cause of the left: “Progressives loved eugenics because it was on the side of reform rather than the status quo, activism rather than laissez faire, and social responsibility rather than

selfishness. Moreover, they were comfortable expanding social intervention in order to bring about a social goal.”⁴⁶

Those leftist critics of modern ETOHN who identify a historical continuity with political justifications for social inequality, or for beliefs about the naturalness and inevitability of competitive struggle, are only half correct. Darwinian concepts were indeed (mis)used by many with right-wing political agendas, but the same was also true of many advocating leftist political policies. Much of the perception that Darwinism is inherently right-wing, therefore, does not reflect the actual history of how Darwinian ideas were incorporated into social and political arguments. As Diane Paul notes: “Darwinism merely provided window dressing for social theories that predated it and would surely have flourished in its absence.”⁴⁷

The modern association of Darwinism with the right, then, is in part due to historical happenstance: for example, to the fact that many of the pre-existing right-wing ideologies most appalling to modern eyes – sexism, say, or imperialism or racism – were often justified using Darwinian rhetoric. But whether Darwinian science actually directly influenced particular political ideologies is questionable; according to Paul, many of those who appealed to Darwinism simply misunderstood or misinterpreted its principles (although, admittedly, “Darwin’s own ambiguities, hesitations and waverings made that easy”):

But the social power of a theory has never depended on a detailed or correct understanding by its interpreters. In particular contexts, the Darwinian discourse of struggle and selection gave old ideas about competition, race and gender a new credibility. In Germany, [for example] ... what the Nazis obtained from Darwin was not a coherent set of ideas or well-developed ideology but a language.⁴⁸

The automatic link that many leftists make between Darwinism and right-wing political beliefs, therefore, is misleading.⁴⁹ Thus, while Darwinian language has certainly been a feature of influential right-wing ideologies (such as nationalism or capitalism), Darwinian rhetoric was also historically employed by those prompting progressive or socialist social reforms.

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A case study of how Darwinian approaches to politics are often interpreted by the left – in this case, leftist criticisms of science writer Matt Ridley’s evolutionary-informed *Origin of Virtue* – can here serve to bring many of the arguments presented above together.

According to sociologist Hilary Rose (one of the central figures in the contemporary opposition to ETOHN): “Right-wing libertarian Matt Ridley sees Darwinian theory as pointing to the unnaturalness of welfare benefits for single mothers, which therefore should be abolished.”⁵⁰ Following Rose’s lead, Anne Oakley similarly refers to Ridley’s *Origin of Virtue* to back up the claim that

“evolutionary psychology has specifically been used to justify conservative social policies, especially a reduction in state support and intervention for disadvantaged groups”.⁵¹

Is this, though, an accurate summation of Ridley’s political argument in *Origins of Virtue*? The obvious way to check the assertions made by Rose and Oakley, of course, is to refer to Ridley’s book, and thus engage in one of the important safeguards against possible ideological bias – verification.

In this particular case, while I have been unable to find any comment about the ‘unnaturalness of welfare benefits for single mothers’ in his book, it is at least true that Ridley criticises the welfare state, and, indeed, that he holds libertarian political views. In his defence, however, this is done as part of a wider critique of (what Ridley believes to be) a naïve view of humans as ‘noble savages’, corrupted by ignoble society – that is, the “soft left” belief that all negative aspects of human behaviour are socially imposed upon an inherently ‘nice’ human nature.⁵²

Ridley, expressing the same evolutionarily-informed sentiment as Peter Singer, suggests instead: “Human beings have some instincts that foster the greater good and others that foster self-interested and anti-social behaviour. We must design a society that encourages the former and discourages the latter.”⁵³ In Ridley’s view (again reflective of Singer’s broad Darwinian left argument) the left’s unwillingness to accept “humankind’s propensity for self-interest”⁵⁴ may undermine its attempt to bring about a more cooperative society.

Ridley applies this analysis of human nature to state government:

[I]f you fail to recognize the basic opportunism of human beings, then you fail to notice how government is composed of self-interested individuals rather than saints who only work for the greater good. Government is then just a tool for interest groups and budget-maximizing bureaucrats to bid up each other’s power and reward at the expense of the rest of us. It is not a neutral, motiveless machine for delivering social benefits.⁵⁵

Here, while egalitarians might, quite rightly, question the libertarian alternative to the state that Ridley later presents, surely he has a point about the dangers of too naïve a view of an all-beneficent state bureaucracy? No-one who has worked in a large organisation, for instance, can be ignorant of how clashes of interest between individuals can impact on the work that is being done, nor believe that this could not also be a feature of government bureaucracies.⁵⁶

Indeed, for those wishing to promote more state involvement in areas such as welfare, a realistic appreciation of human behaviour is important; if we wish to maximise the benefits of government intervention in the welfare of its most needy citizens, then we need to recognise and overcome the detrimental effects of the possible self-serving behaviour of bureaucrats (and this would be the case regardless of whether such behaviour were shaped more by nurture or more by nature).

Ridley’s libertarian critique of the welfare state is indeed scathing: for example, he argues that “giant, centralized Leviathans like the National Health

Service, nationalized industries and government quangos, all based on condescension” have destroyed peoples’ strong sense of community, and that the welfare state’s mandatory nature has “encouraged in its donors a reluctance and resentment, and in its clients not gratitude but apathy, anger or an entrepreneurial drive to exploit the system.”⁵⁷

Of course, Ridley is here trotting out the standard libertarian objections to the welfare state. Nevertheless, unless we believe that state bureaucracy is sacrosanct or that its operation is beyond improvement, surely there is an element of truth to at least some of these criticisms? This does not mean that Ridley’s subsequent call for a scaling down of the welfare state is the only option; egalitarians could also use such an analysis of the limitations of existing state bureaucracy to design a more efficacious welfare alternative. (Indeed, egalitarians could themselves critique multinational corporations in the same way that Ridley does the government: that, say, the greed and self-interest of those running such corporations is socially destructive.)

How, then, does this relate to the wider enquiry into leftist attitudes to ETOHN?

Oakley suggests that the evolutionary approach to politics exemplified by Ridley is “culturally pernicious”.⁵⁸ From the above analysis of the *actual* arguments that Ridley presents, though, this appears an unwarranted claim. While Ridley’s libertarian beliefs may indeed be wrong-headed to many on the left, his evolutionary explanation for human behaviour is independent of the political beliefs that he later expounds. That is, he believes that certain political policies will promote desirable human behaviour at the expense of the undesirable; but, regardless of the soundness of these political beliefs, the fact that humans have desirable and undesirable tendencies still remains.

Oakley and Rose, moreover, clearly imply that Ridley’s evolutionary arguments involve a callous disregard for the poor or the disadvantaged. This, too, is an unfair criticism. Of course, in Ridley’s (libertarian) political opinion, the current state welfare system hinders rather than helps society to flourish. But Ridley is not arguing that the disadvantaged should simply be left to fall by the wayside; rather, he argues, rightly or wrongly, that such groups would be better served by the libertarian policies that he advocates.

Why, then, do the likes of Oakley and Rose provide such skewed and unjustified criticism of Ridley’s argument? To paraphrase Fausto-Sterling’s point about ideological blinkering above, it is possible that their *a priori* notions about the inherent right-wing nature of ETOHN hinders their ability to observe. In other words, these critics of evolutionary theory – like those discussed above – appear ideologically inclined to dismiss evolutionary theory without any real attempt to give a balanced assessment of what the theorists themselves actually say.

Indeed, because the paradigm in the social sciences is largely negative towards ETOHN, many researchers seem predisposed by their disciplines’ prevailing set of beliefs to react sceptically (and perhaps unfairly) to evolutionary approaches to human behaviour. Furthermore, such a paradigm appears self-reinforcing: if new entrants into the field of gender studies are exposed to the sort of distorted account of

evolutionary theory presented by Oakley or Rose, then they are unlikely to approach ETOHN with an open mind.

An unfortunate irony here is that many of those on the left who focus on the (real or apparent) ideological bias of science, appear to be themselves ideologically blinkered in respect of ETOHN.

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In an area as politically charged as the debate about human nature, it is often difficult for outsiders to know which side to believe. For example, according to evolutionary psychologist Geoffrey Miller, left-wing critics “such as Stephen Jay Gould, Steven Rose, and Richard Lewontin have convinced a substantial portion of the educated public that evolutionary psychology is a pernicious right-wing conspiracy, with the hidden ideological agenda of reviving biological determinism, sexism, racism, and elitism”.⁵⁹

Of course, here Miller himself is likely to be biased in his attitude towards his own discipline. Nevertheless, to the extent that this chapter’s discussion of beliefs about evolutionary theory is indicative of a wider paradigm within the social sciences, the view that Darwinian ideas are inherently right-wing does indeed appear to be widely held. Furthermore, many (though not necessarily all) contemporary leftist attitudes towards ETOHN appear based on misunderstanding or misrepresentation of Darwinian ideas.⁶⁰

The left, following Marx, has justifiably drawn attention to obvious bias in earlier Darwinian accounts of human behaviour; however, the potential for prejudice within science is not an adequate reason to reject Darwinian theory: as an empirical science, (human) evolutionary biology is able to self-correct in the light of new evidence and to amend or discard erroneous assumptions.

Moreover, as an empirical science, Darwinism is a source solely of facts, not of political values. The idea that Darwinism is inherently right-wing, therefore, is nonsensical, and the association between Darwinian ideas and right-wing political ideology is misleading.

Even if it were true that evolution, or the teaching of evolution, encouraged immorality, that would not imply that the theory of evolution was false. It is quite astonishing how many people cannot grasp this simple piece of logic. The fallacy is so common it even has a name, the *argumentum ad consequentiam* – X is true (or false) because of how much I like (or dislike) its consequences.

Richard Dawkins, *The Greatest Show on Earth*

Chapter 4: Deterministic & Reductionist. Not

In one of the most famous passages from *On the Origin of Species*, Charles Darwin suggested of his theory of natural selection that “There is grandeur in this view of life”. A half century or so later, William Jennings Bryan, the creationist state prosecutor in the infamous Scopes ‘Monkey Trial’, described natural selection just as lyrically, but with an entirely opposed sentiment: Darwin’s theory, Bryan believed, was “a dogma of darkness and death”.¹

This latter view of evolutionary theory is shared by many fundamentally-minded religious believers who would reject the materialist Darwinian claim that life emerged from matter, and consciousness from life. It is not difficult to appreciate why. If all life, including human life, simply arose through chemical reactions in some primeval ‘warm little pond’, as Darwin initially speculated, does this not rob our lives of all real meaning? Indeed, in the absence of a Divine Creator with some higher purpose to human existence, just what is the point of life? From the Darwinian perspective, life (and love and joy and fear and hope, and all the other *meaningful* aspects of it) appears futile.

Richard Dawkins, the most outspoken of Darwin’s modern heirs, would agree – both with the grandeur of an evolutionary view of life and with life’s ultimate purposelessness. For example, in *The Greatest Show on Earth: The evidence for evolution*, Dawkins (suffering from a cold as he writes) ruminates on the futility of the common cold virus existing solely to replicate itself, and splutters: “Futility? What nonsense. Sentimental human nonsense. Natural selection is *all* futile. It is all about the survival of self-replicating instructions for self-replicating.”²

This view of life as nothing but replication for replication’s sake is most memorably expounded in Dawkins’ *The Selfish Gene*. Here, in fleshing out Darwin’s idea of life’s origins in some warm little pond, Dawkins speculates about a ‘primeval soup’, some three or four billion years ago, within which simple chemical compounds combine into more complex molecules, and eventually into amino acids (the building blocks of proteins).³

“At some point”, Dawkins suggests, “a particularly remarkable molecule was formed by accident ... [with] the extraordinary property of being able to create copies of itself.”⁴ This self-replicating molecule eventually gave rise to further, more complex and more efficient replicators, which eventually built themselves “survival machines” in which to live:

Now they [modern replicators] swarm in huge colonies, safe inside lumbering robots, sealed off from the outside world, communicating with it by tortuous indirect routes, manipulating it by remote control. They are in you and me;

they created us, body and mind; and their preservation is the ultimate rationale for our existence. They have come a long way, these replicators. Now they go by the name of genes, and we are their survival machines.⁵

Here, Dawkins is presenting to a popular audience the gene-centred view of evolution that had begun to emerge in the 1960s and 1970s. Yet while the basic tenets of this gene-centred view are now accepted as biological orthodoxy,⁶ in a wider context, Dawkins' metaphorical concept of the 'selfish gene', and most especially its application to human beings, has met with fierce resistance. As Dawkins himself acknowledges, some critics even accuse him of "advocating selfishness as a principle by which we should live".⁷

And just as it is not difficult to see why religious people may object to Darwinism's materialist account of the origins of life, so it is easy to understand why many secular people may feel qualms about the gene's-eye view of *human* life and behaviour. After all, the desire for life to have some ultimate value is not the prerogative of the pious; even the non-religious might feel that human meaning or worth is stripped away if human beings are nothing more than lumbering robotic 'survival machines', the end product of a blind process of self-replication with no ultimate purpose beyond further reproduction.⁸

From this new evolutionary perspective, seemingly selfless behaviour merely masks self-interest, and even something as deeply felt as a parent's love for a child could be explained in terms of 'selfish genes': this 'love' being merely an emotional trick by which genes get one organism to care for another organism that carries copies of the same genes.

Indeed, for sociologist Hilary Rose, "the flashpoint" in her opposition to ETOHN came with "the claim that parental love is reducible to genetics".⁹ Fellow sociologist Howard Kaye similarly expresses a wider disquiet about the Dawkinsian image of humans ultimately controlled by selfish genes: "Dawkins's myth of the selfish gene and its hellish creation [survival machines] is, of course, scientifically false, as well as being morally abhorrent".¹⁰ Comparable views are apparent in many criticisms of modern evolutionary thinking, at least where it applies to human behaviour.¹¹

But do opponents of modern ETOHN (i.e., theories themselves premised on concepts such as kin selection and 'selfish genes') not have a point – say, about the morally or socially pernicious nature of theories that apparently posit selfishness as the be all and end all of human existence?

For example, as philosopher Leslie Stevenson argues, a great deal depends on whichever theory of human nature we accept: "for individuals, the meaning and purpose of our lives, what we ought to do or strive for, what we may hope to achieve, or to become; for human societies, what vision of human community we hope to work towards, what vision of social change we favor."¹² Yet these crucial individual and social questions appear meaningless when we accept that humans are, as Stevenson describes it, "essentially products of evolution, programmed to pursue our self-interest, to reproduce our genes, or fulfil our biological drives".¹³

And not only does meaning and purpose appear to evaporate with the evolutionary view of life, but so too, apparently, does any hope or vision of a better society towards which we could strive. If we truly are genetically ‘programmed’, then however much we may delude ourselves (or, rather, be deluded by our own selfish genes), our behaviour and our social outcomes would appear largely beyond our control. Resistance is futile.

For the left, therefore, the apparent reductionism and determinism of modern ETOHN appears to deny the possibility of a more just or more equitable future society – a point clearly articulated in Rose et al.’s aptly titled *Not in Our Genes*:

For if human social organisation, including the inequalities of status, wealth, and power, are a direct consequence of our biologies, then, except for some gigantic program of genetic engineering, no practice can make a significant alteration of social structure or of the positions of individuals or groups within it. What we are is natural and therefore fixed. We may struggle, pass laws, even make revolutions, but we do so in vain.¹⁴

If a Darwinian account of human nature, and especially the gene-centred (or ‘selfish gene’) view of evolution, really does doom our egalitarian aspirations, then Singer’s call for the left to take human evolution seriously would appear simply a call for the left to admit defeat.

In this chapter, I assess the apparent reductionism and determinism of evolutionary concepts of human behaviour. After examining the claims made by ETOHN’s critics, and the rebuttals issued by evolutionists, I argue that modern Darwinian theories are not deterministic or reductionist in the extreme sense implied by the likes of Rose et al. In addition, I assess some of the ‘conceptual’ problems that often arise due to Darwinian perspectives on human behaviour – for example, the idea that this robs human life of dignity and meaning – and suggest that, in the absence of religious or transcendental beliefs, alternative non-Darwinian points of view are themselves equally problematic.

As part of my discussion, I provide case studies of modern Darwinian accounts of parental love and on maternal behaviour. I argue that much opposition to these evolutionary perspectives are misguided, and that a Darwinian approach to human behaviour is, in fact, compatible with standard sociological or environmentalist arguments. I extend this argument to suggest that the insights potentially made available by ETOHN could and should be integrated into egalitarian political policy-making.

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Rose et al.’s claim that “Sociobiology is a reductionist, biological determinist explanation of human existence”¹⁵ is widely accepted by critics of ETOHN.¹⁶ Similarly, Rose & Rose highlight the supposed “biological fatalism” that runs through modern sociobiology and evolutionary psychology, and argue that “the claims of

biology-as-destiny are as old as history itself, a continuing and powerful cultural strand in an old narrative”.¹⁷ The sense of irreversibility or inevitability in ETOHN’s apparent determinism is neatly captured in a parallel criticism by palaeontologist Stephen Jay Gould: “If we are programmed to be what we are, then these traits are ineluctable. We may, at best, channel them, but we cannot change them either by will, education, or culture.”¹⁸

Nevertheless, especially in light of the apparent misunderstanding and misrepresentation of Darwinian concepts highlighted in the previous chapter, it is necessary to ask whether modern evolutionary theories of human nature are, as these critics suggest, deterministic in this strong ‘irreversible’ or ‘inevitable’ sense.

Normally, of course, it is not political science’s or philosophy’s role to settle this sort of question, and a more useful task for these disciplines would appear to be assessing what follows *if* ETOHN really are deterministic. However, it is quite obvious – say, from everyday observation of how human behaviour develops – that any belief in *extreme* biological or genetic determinism is absurd. No sensible biologist would claim that genes alone determine human behaviour or that ‘biology is destiny’.¹⁹

In responding to the charge of determinism, Richard Dawkins argues that genes ‘determine’ behaviour only in a statistical sense, much as the generalisation ‘a red sky at night’ might provide a statistical forecast of good weather. “We don’t see red sunsets as irrevocably determining fine weather the next day,” Dawkins points out, “and no more should we think of genes as irrevocably determining anything.”²⁰ As regards the notion that genetic ‘determination’ equates to ineluctability, Dawkins further argues “it is perfectly possible to hold the view that genes exert a statistical influence on human behaviour while at the same time believing that this influence can be modified, overridden or reversed by other influences.”²¹

Sociobiology’s founder E.O. Wilson, meanwhile, contrasts the genetic determination of an insect “automaton” (like the mosquito), controlled by “a sequence of rigid behaviours programmed by the genes to unfold unerringly from birth”, with the indirect and variable genetic influences on human behaviour: “Rather than specify a single trait, human genes prescribe the capacity to develop a certain array of traits. In some categories of behaviour, the array is limited and the outcome can be altered only by strenuous training – if ever. In others, the array is vast and the outcome easily influenced.”²²

The claim that proponents of ETOHN are peddling *extreme* deterministic beliefs, therefore, would appear unwarranted. The real issue, as pointed out by zoologists Kevin Laland and Gillian Brown, is not about genetic determinism, “but rather genetic constraints and propensities”.²³ Here, Wilson’s famous phrase, “the genes hold culture on a leash”²⁴, captures this issue neatly: the claim is *not* that human culture or behaviour is irrevocably fixed by our genes, but rather that our genes may restrict or constrain what is culturally or behaviourally possible.

Importantly, from the perspective of Singer’s Darwinian left, one consequence of the repeated but seemingly unjust claim that modern ETOHN are inherently deterministic is that it becomes easy for egalitarians to dismiss all such theories out of

hand. Singer instead advances “the entirely unoriginal proposition” that some areas of human behaviour show great diversity, while in other areas, human behaviour stays fairly constant or predictable, even across the whole range of human cultures.²⁵ He goes on to argue that this range of behaviours, from the variable to the relatively fixed, can be analysed in evolutionary or biological terms, and that, by accepting the possibility of some evolved *constraints* on our behaviour, the left may gain “a better understanding of what it may take to achieve the goals we seek”.²⁶

Further, by erroneously equating the possibility of genetic *influences* on our behaviour with the notion of biological or genetic determinism, the left may fail to realise that many such influences (especially if acknowledged and understood) could still be countered or changed. For example, as Dawkins argues, “there is no general reason for expecting genetic influences to be any more irreversible than environmental ones”.²⁷ In the popular consciousness at least, genes appear to have accrued a reputation for fixity or inescapability that, according to Dawkins, is undeserved: “Educational, or other cultural influences may, in some circumstances, be just as unmodifiable and irreversible as genes ... are popularly thought to be.”²⁸

Singer’s desire for the left to acknowledge the relevance of human evolution (and thus to accept the role of genes) is not, therefore, an admission of defeat: even if our genes influence or constrain our behaviour in certain ways, this does not necessarily deny the possibility of changing this behaviour – and hence changing society – in desirable ways. Singer’s Darwinian argument, in other words, like that of Wilson, Dawkins and most other credible evolutionary theorists, is *not* a genetic determinist one; similarly, the notion of genetic influences or constraints on our behaviour is *not* the extreme genetic determinism that many critics impute.

What, then, of the related oft-made criticism that modern evolutionary theories are ‘reductionist’?

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If reductionism is defined as the process by which complex phenomena (such as social behaviour) are analysed or described in terms of phenomena at a simpler or more fundamental level, then modern evolutionary science is indeed ‘reductionist’. Yet, as Laland & Brown point out, “This method of understanding the world is applied throughout science, and it would seem more a virtue than a sin”.²⁹ Nevertheless, another sense of reductionism is that lower level analysis or description can provide sufficient or complete explanation for higher level phenomena (such as human behaviour). To many critics of ETOHN, modern evolutionists are reductionists in this second, pejorative, sense.

Rose et al., for example, illustrate both senses of the term in their critique of the (apparent) reductionism of evolutionary accounts of human nature. They begin by arguing that, broadly, “reductionists try to explain the properties of complex wholes – molecules, say, or societies – *in terms of* the units which these molecules or societies are composed”. Rose et al. then go on to claim that evolutionary reductionists “would also argue that the properties of a human society are ... *no more than the sums of the*

individual behaviors and tendencies of the individual humans of which that society is composed”.³⁰ As an example of this latter sense of reductionism, sociobiologists (according to Rose et al.) would explain ‘aggressive’ societies as the product of ‘aggressive’ individuals.

This pejorative sense of reductionism (that, say, a complex phenomenon such as society can be explained simply as the ‘sum of its parts’) is a charge that most evolutionists themselves strongly dispute. For example, in a (scathing) review of *Not in Our Genes*, Richard Dawkins argues that the ‘in terms of’ sense of reductionism “covers a multitude of highly sophisticated causal interactions, and mathematical relations of which summation is only the simplest”; by contrast, reductionism in the ‘sum of the parts’ sense “is obviously daft, and is nowhere to be found in the writings of real biologists.”³¹

Here, E.O. Wilson’s concept of ‘consilience’ neatly illustrates a wider aspect of the dispute about reductionism. Wilson initially suggests that the boundaries between academic disciplines, each with “its own practitioners, language, modes of analysis, and standards of validation”³² – and, especially, the disjunct between the social sciences and the natural sciences – hinders the flow of information and ideas that are most needed to tackle real world problems (such as poverty or environmental degradation).

Wilson demands instead a ‘conceptual unity’ or ‘consilience’ across academic disciplines, so that intellectual enquiry can move between different levels or domains of explanation, as and where necessary. Such unity, as Wilson points out, is a cornerstone of the natural sciences; and in respect of reductionism, scientific analysis ranges across many levels of complexity, from physics, say, to chemistry to molecular genetics to ecology. Wilson goes on to argue: “Given that human action comprises events of physical causation, why should the social sciences and humanities be impervious to consilience with the natural sciences? And how can they fail to benefit from that alliance?”³³

The idea of consilience or unity between the natural and the social sciences, however, has been greeted with suspicion by many social scientists, most especially because it implies social or cultural phenomena being *reduced* to human biology. Here, evolutionary psychologist Steven Pinker acknowledges the fear “that consilience is a smokescreen for a hostile takeover of the humanities, arts, and social sciences by philistines in white coats”.³⁴ Pinker, though, suggests that this reflects a misguided concern about ‘greedy reductionism’, analogous to the ‘sum of the parts’ sense of the term above, in which sociology or literature or history is replaced by biology. And in pointing out that this is an unreasonable fear, Pinker asks (rhetorically), “why stop there?”

Biological in turn could be ground up into chemistry, and chemistry into physics, leaving one struggling to explain the cause of World War I in terms of electrons and quarks. Even if World War I consisted of nothing but a very, very large number of quarks in a very, very complicated pattern of motion, no insight is gained by describing it that way.³⁵

Pinker contrasts this ‘daft’ form of reductionism with a more sensible version, which “consists not of *replacing* one field of knowledge with another but of *connecting* or *unifying* them”.³⁶ Like Wilson, then, Pinker believes that the social sciences can only but benefit by greater integration into the natural sciences. For instance, he argues that “our understanding of ourselves and our cultures can only be enriched by the discovery that our minds are composed of intricate neural circuits for thinking, feeling, and learning rather than blank slates, amorphous blobs, or inscrutable ghosts”.³⁷

It is useful to compare two different views of the value of ‘consilience’ between the natural and the social sciences. E.O. Wilson believes that any such consilience would greatly assist attempts to address real world problems.

Most of the issues that vex humanity daily – ethnic conflict, arms escalation, overpopulation, abortion, environment, endemic poverty, [etc.] – cannot be solved without integrating knowledge from the natural sciences with that of the social sciences and humanities. Only fluency across the boundaries will provide a clear view of the world as it really is, not as seen through the lens of ideologies and religious dogmas or commanded by the myopic response to immediate need.³⁸

Hilary Rose, by contrast, in her tellingly titled article ‘Colonising the social sciences?’, expresses a much less positive view of consilience, and most especially on (what she believes is) its attempt to ‘reduce’ social problems to the biological level:

[A]ttempting to explain genocidal conflict, globalization, the ecological crisis, mass rape as a weapon of war, famine and disaster, new infectious diseases or the growing gap between the rich and the poor requires an array of analytic tools from many disciplines. Confronting such horrors and finding a political route through them requires both social courage and imagination. In this situation giving up responsibility for grappling with cultural and social complexity and embracing facile evolutionary universalisms is a moral and intellectual cop out.³⁹

Initially, then, Wilson and Rose both agree that solving or explaining the problems that beset the world requires a cross-disciplinary approach. However, whereas for Wilson ‘fluent’ discourse across subject boundaries could provide a clearer picture of global problems, for Rose this could be disastrous, especially if ‘facile’ evolutionary concepts are employed at the expense of a deeper appreciation of the true intricacies of the situation. For Rose, evolutionary biology can only but provide simplistic or superficial explanations for complex cultural and social problems.

Yet are evolutionary explanations indeed simply ‘facile’? Even if non-scientists were unable to directly address this issue, they could still argue that the

usefulness or otherwise of an evolutionary perspective on social issues remains an open question – ironically, one resolvable only through the very consilience (or cross-disciplinary unity) advocated by Wilson. Thus, in principle, and even if Rose is correct about the failings of many contemporary ETOHN, this does not mean that all evolutionary-informed approaches to social problems are inherently superficial or simplistic.

Indeed, Rose's position here on 'cultural and social complexity' appears to reflect the "obscurant holism" that, according to Laland & Brown, "afflicts many of the social sciences"⁴⁰ – the view of culture as "an amorphous, interwoven conglomerate of knowledge, behaviour, and tradition" that, for many social scientists, makes it resistant to reductionist scientific modelling or analysis.⁴¹

Laland & Brown, however, dismiss the idea that cultural processes are unanalysable in terms of lower level phenomena. Instead, they suggest that, while culture is indeed a complex and interconnected system, "the fundamental lesson of science is that patient chipping away at such perplexingly intricate problems yields dividends in the long run." Thus, Laland & Brown argue that "the bottom line is that biologists and human scientists alike will not be able to understand cultural processes unless they are prepared to break them down into conceptually and analytically manageable units."⁴²

How, though, does this relate to the evolutionary theories that underpin Singer's Darwinian left? To the extent that these theories are 'greedily reductionist', or equate complex phenomena to 'the sum of the parts', they should be rejected. However, to the extent that these theories attempt to explain complexity in terms of lower level or simpler phenomena, this should be accepted as a scientifically valid (if not necessarily straightforward) approach. Indeed, a similar stance could be adopted over the wider reductionist/determinist dispute: as Laland & Brown point out, while most social scientists are content to assume that biology or genetics is largely irrelevant to human behaviour, "[t]here is nothing reductionist or deterministic about the challenging of this assumption".⁴³

To relate this more closely to *A Darwinian Left*: Singer wishes to challenge the left's assumption that human evolutionary history is irrelevant to modern social behaviour, and therefore irrelevant to our political policymaking. His argument broadly reflects the notion of consilience – that to more fully understand human social behaviour we must examine it from the wider perspective provided by evolutionary science. At the same time, however, this is not to dismiss the role of culture, which, Singer argues, "does have an influence in sharpening or softening those tendencies that are most deeply rooted in our human nature".⁴⁴

As with the charge of genetic determinism, then, Singer (like Wilson, Dawkins, Pinker and most other credible evolutionists) is not a reductionist in the sense imputed by many critics of ETOHN. This, though, does not mean that the left have no genuine grounds for concern about evolutionary approaches to human behaviour – indeed, a number of problematic issues still remain (for example, to what extent is Singer's talk of evolved 'tendencies', 'predispositions' or 'influences' simply a politically correct rewording of earlier notions of 'drives' or 'urges', or

‘biological imperatives’?). These on-going leftist concerns, however, will be addressed in a later chapter.

Here, I will draw together many of the arguments presented above with a case study of both the evolutionary claim that parental love is reducible to genetics and the leftist objections to this kind of Darwinian reasoning. This will also raise some of the ‘conceptual’ problems that many on the secular left (in common with those on the religious right) often have with evolutionary theory – for example, the idea that Darwinism robs human life of meaning or purpose.⁴⁵

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Leslie Stevenson’s introductory text on *Theories of Human Nature* has gone through numerous editions since it was first published in 1973. The most poignant change (and, indeed, the most human) between these editions is the dedication: in 1973, Stevenson dedicates his book “To my parents”. By 2004, this has become “To my daughters”. An obvious explanation for this change (if indeed any is needed) is simply time – that Stevenson was a young man in 1973, and his parents were clearly still a major influence in his life; thirty years later, he is in the parental role, and his daughters are now a main focus of his attention.

How is this at all relevant to the subject matter of this chapter (or indeed this thesis) – the relationship between egalitarian political theory and Darwinian science?

For a start, there is a definite political element to our relationship with kin – for example, as terms such as ‘nepotism’ indicate, those in positions of power may favour close relatives in non-egalitarian ways.⁴⁶ The potentially detrimental political aspects of kinship were recognised by Plato, who, in his design for an ideal Republic, required children to be raised communally, without knowledge of their biological parentage. And this idea, of erasing or reducing parent/child bonds, was later put into practice in socialist kibbutzim, whose founders were clearly aware of the non-egalitarian potential of members favouring their own children.

What, though, of a possible evolutionary ‘explanation’ for the change in Stevenson’s dedication, from parents to children? In this respect, popular science writer Robert Wright examines how the genetic ‘utility’ of our parents alters over time, as seen from the amoral perspective of natural selection: “As we pass through adolescence, [parents] are less and less critical databanks, providers, and protectors. And as they pass through middle age, they are less and less likely to further promulgate our genes. By the time they are old and infirm, we have little if any genetic use for them.”⁴⁷

And while, according to Wright, no strong evolutionary reason exists for us to care for our parents once they are old or dying, the fact that we do reflects a “stubborn core of familial love [that] persists beyond its evolutionary usefulness” – an illustration of “how imprecise the genes can be in turning on and off our emotional spigots”.⁴⁸

Yet if Wright’s Darwinian interpretation of a child’s feelings towards its parents makes uncomfortable reading, it gets worse when he provides a similar

analysis of a parent's love for a child. Seen through the 'pitiless eyes' of natural selection, for instance, emotional attachment should correlate with the child's genetic prospects: "Specifically, parental devotion should grow until around early adolescence, when reproductive potential peaks, and then begin to drop" – which, according to Wright, explains why parents grieve more over the death of an adolescent than a much younger (or, indeed, much older) child:

Just as a horse breeder is more disappointed by the death of a thoroughbred the day before its first race than the day after its birth, a parent should be more heartbroken by the death of an adolescent than by the death of an infant. Both the adolescent and the mature racehorse are assets on the brink of bringing rewards, and in both cases it will take much time and effort, starting from scratch, to get another asset to that point.⁴⁹

This Darwinian perspective, then, suggests that the change in Stevenson's dedication, from 'to my parents' to 'to my daughters', is more than simply a consequence of elapsing time: if the evolutionary story is correct, this is itself an example (to use Stevenson's own terms) of evolved 'programming' 'to pursue our self-interest, and to reproduce our genes'. In other words, in 1973, Stevenson's genetic self-interest still lay with his parents; by 2004, it aligns with those who bear his genes in the next generation and, thus, ensure his genetic stake in the future (a.k.a. his daughters).

But hold on. Even if we take Wright's analogy between thoroughbred horse breeding and human 'breeding' to be a rhetorical flourish, is this not an unnecessarily cynical *misreading* of human emotions such as parental love? As indicated earlier, this is the sort of reasoning that sparked Hilary Rose, one of the most trenchant and influential left-wing critics of ETOHN, in her opposition to Darwinian theory. And is this not understandable?

Certainly if you are a parent (as I am), then Wright's interpretation of parent/child relationships is awful to contemplate – surely, we love our children because they are worth loving (well, at least most of the time), and not because we are manipulated by genes that turn our emotions on or off. I certainly *want* to believe that I love my daughter because she is a wonderful person, not just because she carries my genes.⁵⁰

But hold on (again). If we reject a Darwinian interpretation on the grounds that we find its implications objectionable, are we not now in danger of confusing facts and values? (As Dawkins' argues at the beginning of *The Selfish Gene*, "however much we may deplore something, it does not stop it being true".⁵¹) In this case, we have the (possible) fact of biological influences on emotions such as love, and we have the value that we place on love in and of itself. The conceptual difficulty is the notion that, if our genes determine our emotions, then this seems, in some way, to de-value our genuine feelings of love.

For example, do I really love my daughter if this is simply what my genes dictate I must do – say, through controlling the release of various emotion-affecting

chemicals into my brain? Indeed, if our deepest feelings of love are, ultimately, just the product of genetic cost/benefit calculations, then 'love' in any wider (or more human) sense seems sentimental nonsense; it is simply an evolved emotional response to those who may best help us pass on our genes – a response, moreover, that can be further reduced to the neuropsychological or to the bio-chemical level. Thus, are the likes of Howard Kaye – who regards the notion of selfish genes as 'morally abhorrent' – not to some degree warranted in warning against the de-humanising potential of a biological view of human nature?

Unfortunately, an objective Darwinian analysis is difficult when the subject being analysed is ourselves – and, especially, when we are dealing with aspects of our behaviour, such as 'love', that have strong emotional content. One possible way to get around this problem is to examine the alternatives to a biological explanation for our behaviour (in this case, alternatives to an evolutionary explanation for parental love). Here, Leslie Stevenson identifies two alternative possibilities to evolutionary 'programming': cultural conditioning and divine or transcendental intervention.

As my focus here is on those who accept a materialist Darwinian explanation for humankind's origins (even if they disagree about the relevance of these origins to modern human behaviour), I can ignore the last of these, the possibility of supernatural influences on our behaviour. (And I will also, for the time being, ignore the far more likely possibility that both genes and culture influence behaviour.) The relevant alternatives here, then, are that *either* our genes *or* our culture is the major determinant of behaviour such as parental love. Once again, I will sidestep the scientific question of which of these alternative positions is likely to be correct, and instead examine *what follows* should either of these explanations for parental behaviour turn out to be true.

As already suggested, it is unsettling to think about our children as genetic 'assets', or the possibility that our love for them simply corresponds to them bearing our genes. An equally upsetting thought is that the level of grief we would feel for the death of a child can be measured as a correlate of that child's level of reproductive potential. However, as unsettling as this may appear, is it actually any worse than the alternative, the possibility that such love is conditioned by society? That is, according an extreme cultural determinist view, the reason we would love our children is that society conditions us to do so. This, though, also seems to de-value love. Do I really love my daughter only because I happen to have been brought up in a society that inculcated such attitudes? And would I *not* love my child, say, if I had grown up in a society with less 'loving' beliefs about children?

In other words, it is not immediately obvious why the notion of socially conditioned 'love' is any less (morally) abhorrent than the idea of genetically programmed 'love'. Indeed, in this case, the thought that parents might love their children *despite* social conditioning seems more comforting. And much the same would be true of an example discussed in the previous chapter, the suggestion by sociologist Michael Kimmel that parents simply make a rational economic decision to care for their children in return for similar care when they, the parents, are old: is not

the cold logic of Kimmel's explanation less human (or more de-humanising) than the evolutionary alternative?⁵²

To the extent, then, that opposition to ETOHN arises from the (often understandable) belief that such theories are dehumanising or that they are morally abhorrent, the alternative 'social conditioning' explanation seems equally (if not more) objectionable – at least in respect of parental love. But before drawing wider conclusions from this, it is useful to examine how evolutionary accounts of parental behaviour, and, most especially, the notion of 'maternal instincts', are addressed by critics within the social sciences. Indeed, a great deal of the antagonism towards ETOHN, and therefore a great deal of the potential political opposition to Singer's Darwinian left, comes about as a result of disputes over this very issue; that is, about human sexual or reproductive behaviour.

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In challenging biological approaches to maternal behaviour, Michael Kimmel suggests that some evolutionary arguments "are just plain wrong in light of empirical evidence". As an example, he asks: "And what about that 'maternal instinct'? How do we explain the enormous popularity of infanticide as a method of birth control throughout Western history and the fact that it was women who did most of the killing? Infanticide has probably been the most commonly practised method of birth control throughout the world."⁵³ Here, Kimmel's dismissal of the evolutionary evidence for a 'maternal instinct' appears premised on the following argument: if women did indeed have a maternal instinct, they wouldn't commit infanticide; women do commit infanticide, therefore women cannot have such an instinct.

Using the same examples – parental instincts and infanticide – Hilary Rose points to another apparent flaw in evolutionary reasoning, that of trying to concoct adaptationist explanations for conflicting behaviours. A classic example, according to Rose, is Steven Pinker's 'just-so story' attempt to explain both the behaviour of loving mothers and the behaviour of murderous mothers in evolutionary terms.

[Pinker] discussed women killing their newborn babies and delivered himself of the view that such an act, where resources were minimal, could be an adaptationist response. He argued that the psychological modules that normally produced protectiveness in mothers for their newborns might be switched off by the challenge of an impoverished environment. At this point, evolutionary adaptationist reasoning becomes an absurd Catch-22 proposition: Both killing and protecting are explained by evolutionary selection. Used like this selection explains everything and therefore nothing.⁵⁴

Rose's rejection of ETOHN here appears premised on the belief that evolutionary theory can explain *either* infant care *or* infant murder; it cannot do both. In addition, like Kimmel, Rose implies that evolutionary accounts of maternal behaviour are deterministic – that *if* such behaviour is evolved, then these evolved

instincts dictate how women must behave; but because women actually display a range of behaviours, the (deterministic) evolutionary account must be false.

As suggested above, the charge of determinism is often unwarranted. Is this also the case here? With regard to Pinker's (albeit speculative) arguments about infanticide, he seems only to be suggesting that evolved behaviours may be *contingent* – that is, that certain behaviours may be more or less likely, depending on prevailing conditions. Far from being an 'absurd Catch-22', this appears a reasonable suggestion – behaviour does vary depending on circumstances, and it is at least plausible that this may be influenced by evolved predispositions. Put another way, the onus should be on Rose (and Kimmel) to explain how and why people behave differently in different contexts, and why there would be no evolved *tendencies* to behave in particular ways (especially with behaviour such as childbirth and child-rearing where strong selective pressures would have operated for millions of years).

In the case of infanticide, anthropologist William Irons suggests that the need to assess if infants are worth caring for or if they should be abandoned is common to all females within the mammalian line. Thus, he argues, modern human females likely come equipped with contingent psychological 'mechanisms' that allow them to assess the costs and benefits of caring for a newborn.⁵⁵

Behavioural ecologist Sarah Hrdy similarly argues that the manner in which human mothers respond to their infants "is influenced by a composite of biological responses of mammalian, primate, and human origin."⁵⁶ And, in contrast to the charge of just-so story telling, the evidence for these 'biological responses' ranges across biochemistry, physiology and comparative anatomy, behavioural ecology, primatology and anthropology, psychology, and social and cultural history. Furthermore, and in addition to the biochemical and physical changes that occur during pregnancy and after childbirth, for which there are numerous analogues elsewhere in nature, Hrdy also points out that, in humans, "maternal investment in offspring is complicated by a range of utterly new considerations: cultural expectations, gender roles, sentiments like honor or shame, sex preferences, and the mother's awareness of the future".⁵⁷

From Hrdy's evolutionary perspective, therefore, 'maternal instincts' are actually a composite of biological, psychological *and* socio-cultural influences, none of which irrevocably dictate the behaviour of human mothers. Indeed, contra the charge of biological determinism, Hrdy's account emphasises how maternal behaviours are contingent on the mother's personal circumstances and the wider socio-cultural context within which she finds herself.

According to Hrdy, "to interpret variation in the way mothers respond to infants as meaning that somehow a woman's biology is irrelevant to her emotions, or that there are no evolved maternal responses, is to misread both the human record and the vast amount of evidence for other animals".⁵⁸ In other words, to summarily dismiss this mass of evidence for '*that* maternal instinct', as Kimmel does, itself appears facile. But so too is Rose's claim that evolutionary reasoning simply presents an absurd Catch 22; that it explains everything and therefore nothing.

Indeed, just like standard sociological explanations for infanticide, an evolutionary explanation would emphasise the environmental factors affecting an individual's behaviour. At the same time, the evolutionary account would also try to explain this 'higher level' behaviour in terms of 'lower level' phenomena, such as evolved psychological predispositions. ETOHN, then, no more 'explain everything and therefore nothing' than other possible alternate explanations for ambivalent behaviour; they do, however, attempt to anchor these explanations more deeply in the evolved psychology of human beings.

Furthermore, in respect of infanticidal behaviour, an evolutionary perspective that explicitly highlights the importance of context (the mother's health, social network, wider social circumstances, future prospects, and so on) is itself compatible with sociological explanations that similarly highlight these contextual factors. An evolutionary account, therefore, may help to explain why, in certain circumstances a mother may behave protectively towards a child, or why, in other circumstances, she may abandon or even kill her child. Thus, far from denying environmental influences (as critics imply), ETOHN could in fact play a part in developing policies and practices to identify and assist women who may struggle with the conflicting demands of motherhood. And this argument could be extended to other aspects of human behaviour and to policies designed to address them.

Of course, this is not to deny the misuse or misinterpretation of Darwinian accounts of human behaviour in the past; for example, as psychologist Vivien Burr argues in respect of the study of gender: "Given that biological accounts have often been used to support and legitimate inegalitarian practices . . . , many feminists have understandably been keen to develop fully social accounts of gender differences, and this move has been welcomed by likeminded psychologists."⁵⁹ But what is significant here is the implicit acknowledgement of potential bias in a 'fully social' alternative to biological accounts of sex/gender – that is, that the former are motivated as much by an (understandable) attempt to *explain away* potential biological influences on behaviour as by the attempt to adequately *explain* that behaviour.

Burr nevertheless acknowledges that any comprehensive theory of gender and of gender roles (and, therefore, of 'maternal' behaviour) must somehow take human biology into account. For example, in summarising various explanations for gender differences, and after reiterating her concerns "about the political and ideological uses of [biological] arguments", she suggests: "we need to develop theories that look at the role of biology in gender without recourse to essentialist, reductionist and determinist ideas"⁶⁰.

Clearly, Burr's assumption is that current biological theories are themselves inherently flawed. But this leads to a (real) Catch 22 impasse: a full account of human behaviour can only be achieved through taking human biology into account; but because biological accounts are thought to be reductionist, determinist or otherwise ideologically biased, they must be rejected; however, a full account of human behaviour can only be achieved through taking human biology into account; but because . . . and so on and so on. In short, the sort of non-reductionist, non-deterministic biological accounts of female behaviour advocated by the likes of Hrdy

– theories that, moreover, may lead to the more comprehensive understanding of gender that is currently lacking – are overlooked due to *a priori* assumptions about the nature and ideological content of evolutionary biological theories.

The unfortunate irony here is that the dismissal of modern ETOHN on the grounds of bias is itself informed by unwarranted (or, at least, unexamined) bias. For instance, after acknowledging the need to explain human behaviour in both social and biological terms, Burr quotes (what she believes to be) the “commendably cautious position” of Rose et al.: “[A]lthough all future as well as past forms of relationship between men and women, both individually and within society as a whole, must be in accord with human biology, we have no way of deducing from the diversity of human history and anthropology or from human biology or from the study of ethology of non-human species the constraints, if any, that such a statement imposes.”⁶¹

But this is not a cautious approach, commendable or otherwise; rather, it is a claim that we cannot *ever* hope to understand the complex links between human biology and human culture. Rose et al. themselves make this clear immediately prior to the quotation that Burr selects, when they argue: “We do not know the limits that biology sets on the forms of human nature, and *we have no way of knowing.*”⁶² What is not made clear, however, is why any such understanding, or even partial understanding, is impossible.

Furthermore, Rose et al. go on to claim: “We cannot predict the inevitability of patriarchy, or capitalism, from the cellular structures of our brains, the composition of our circulating hormones, or the physiology of sexual reproduction”.⁶³ Their intention is clearly to imply that evolutionary theorists make these sorts of ‘daft’ reductionist and deterministic assertions. A great deal of the opposition to ETOHN, it appears, is the result of social scientists, such as Vivien Burr, Anne Oakley or Michael Kimmel, accepting on face value these sorts of claims about the nature of ETOHN.

The arguments raised in Sarah Hrdy’s *Mother Nature*, by contrast, based on evidence from human history, anthropology and biology, and from animal ethology (as well as from the numerous other branches of biological science mentioned above), surely provides *some* insight into what human beings are as a species, and *some* understanding of why we have become the way we are. And while Hrdy’s conclusions may eventually prove to be wrong, her biologically-informed approach to maternal behaviour surely demonstrates that some degree of reconciliation between human biology and human culture is possible.

Furthermore, while it is obvious here that my personal sympathies lie with evolutionists, this is not necessarily a question of taking sides: modern evolutionary accounts of human behaviour, including maternal behaviour, are based on (ever-increasing amounts of) scientific evidence. The interpretation of this evidence might turn out to be erroneous or, as in the past, inadvertently biased; nevertheless, it cannot reasonably be dismissed in the off-hand manner so often evidenced by ETOHN’s detractors.

Sarah Hrdy herself provides an even-handed overview of many of these issues; for instance, in analysing why many feminists and social scientists continue to

oppose biological explanations for maternal behaviour, she suggests much of the early biological research into motherhood was indeed built on moralistic and patriarchal ‘wishful thinking’ rather than objective observation:

It has taken a long time to correct these errors and revise old biases, ... [and] widen the evolutionary paradigm to include both sexes. But by the time this happened, feminists, social historians, and philosophers were convinced that they knew what evolutionists had to offer, that it was necessarily flawed, determinist, and un insightful. Natural selection, and with it the most powerful and comprehensive theory available for understanding the basic natures of mothers and infants, was rejected, as social scientists and feminists took another route. That path, which led away from science, led them to reject biology altogether and construct alternative origin stories, their own versions of wishful thinking about socially constructed men and women, and infants born with more nearly a desire for mothers than a need.⁶⁴

And a further, unfortunate, consequence of the ‘alternative itinerary’ adopted by many feminists and social scientists, according to Hrdy, is that they remain unaware of the much more complex and multi-faceted view of mothers and of female behaviour that is now offered by modern biology. Similar comments could be made about those social theorists whose appreciation of human evolutionary theory does not extend beyond the discredited ideas of early 20th century Social Darwinists and racial anthropologists.

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Both sides in the debate about the relevance of human biology to modern social behaviour accept the fact of human evolution: surely, then, those who deny that this is at all relevant to modern human behaviour need to explain how we humans have escaped the constraints of our biological past.

Sarah Hrdy’s evolutionary-informed analysis of maternal behaviour, for example, demonstrates that, while these behaviours are contingent upon environmental circumstances, they can still be explained in terms of the deep evolutionary history of human females. A greater understanding of these influences on behaviour can only but be beneficial to individuals, groups and agencies involved with the care of mothers and of infants. And we can generalise from this: a greater understanding of the possible evolved influences on humans’ social and political behaviour can only but be beneficial to social and political policymaking.

This is in keeping with Peter Singer’s point that the range of human social behaviours, from the variable to the relatively fixed, can be analysed in both evolutionary and cultural terms. Yet by applying a Darwinian perspective on these behaviours in addition to the existing cultural one, Singer argues that the left may be better informed about how to bring about its desired social and political goals.

The case study of parental and, especially, maternal behaviour suggests that many of the standard leftist concerns or assumptions about ETOHN are misplaced. For example, most evolutionists reject the charge that their theories are deterministic or reductionist in the sense imputed by critics, instead arguing that genetic influences on behaviour are ‘deterministic’ in a statistical not in an absolute or irreversible sense – and, moreover, in the case of humans, that any such genetic determination reflects the (hugely variable) capacity to develop a range of behavioural traits. Similarly, ETOHN’s reductionism – an attempt to explain complex behaviour in terms of lower level phenomena – is the same methodology that is taken for granted elsewhere in science; it is not the ‘daft’ attempt to reduce complex social phenomena solely to biological mechanisms.

Moreover, a Darwinian approach to maternal behaviour – and, by extension, other aspects of human social or political behaviour – appears compatible with sociological or environmental perspectives. If so, this indicates the potential benefits of greater unity or ‘consilience’ between various branches of human intellectual enquiry – again, a concept that has been met with (unwarranted) suspicion by some sections of the left. Thus, if leftists abandoned the belief that ETOHN equate solely to genetic determinism and greedy reductionism, the possibility of a more insightful and beneficial consilience, and of more fluent dialogue between social scientists and natural scientists, appears much more realisable.

The modern gene-centred view of evolution – and, perhaps most especially, Richard Dawkins’ metaphorical ‘selfish gene’ – in which life, including human life, is explained in terms of the self-replication of genes, undoubtedly exacerbates much latent opposition to Darwinian theory. Robert Wright’s (cold and amoral) gene’s-eye-view of parent/child ‘love’, for example, is a clear illustration of this: it is emotionally upsetting to think that our behaviour (and, indeed, our emotions themselves) may be ‘controlled’ by our genes. (At the same time, it is not immediately obvious that alternative explanations for human behaviour, such as social conditioning, are necessarily less problematic.)

The belief that evolutionary ideas are somehow ‘immoral’, though, is to confuse facts with values. This, the so-called *is/ought* gap, is the subject of the next chapter.

Chapter 5: *Ought and Is (and Can)*

According to Peter Singer, “Darwin himself rejected the idea that any ethical implications could be drawn from his work.”¹ This is debatable. For example, in the *Descent of Man*, Darwin peppers his ‘General Summary’ with a mixture of factual observations and moral recommendations about human reproductive behaviour and marriage:

Both sexes ought to refrain from marriage if they are in any marked degree inferior in body or mind; but such hopes are Utopian and will never be even partially realised until the laws of inheritance are thoroughly known. ...

[A]ll ought to refrain from marriage who cannot avoid abject poverty for their children; for poverty is not only a great evil, but tends to its own increase by leading to recklessness in marriage.

[I]f the prudent avoid marriage, whilst the reckless marry, the inferior members tend to supplant the better members of society.²

Contrary to Singer’s claims, therefore, Darwin’s position on the implications of evolutionary theory may best be described as ambivalent.³ And given the apparent difficulty that Darwin himself faced in divorcing his biological beliefs from his social prejudices, it is little wonder that his theory was quickly seized upon by others keen to justify their own social or political ideals with the weight of scientific ‘fact’.

Singer, for example, notes how Darwinian theory became “a high fashion item” with late 19th and early 20th century capitalists: “These ideas did not all come from Darwin. Herbert Spencer, who was more than willing to draw ethical implications from evolution, provided the defenders of laissez-faire capitalism with intellectual foundations that they used to oppose state interference with market forces.”⁴ A century later, therefore, when conservative political scientist Larry Arnhart attempts to use Darwinism “as an intellectual weapon supporting traditional morality – and conservative principles generally”⁵, he is following a well-worn (and by now slippery) political path.

This chapter examines the relationship between the scientific theory of (human) evolution, on the one hand, and moral or political beliefs, on the other. In *A Darwinian Left*, Singer relies heavily on this distinction, and, in particular, on the fallacy of deducing values from facts.⁶ That is, and in contrast to many historical attempts to derive political principles directly from Darwinian theory, Singer argues that a Darwinian understanding of human nature need not determine our political decision-making (although evolutionary theory could provide information useful to these decisions).

Nonetheless, Singer acknowledges that Darwinian thinking can connect with ethics or politics in many different ways, and in addition to its potential role in providing information for policy-makers, Singer highlights three other ways in which ETOHN can be invoked in political debate – some of which, he suggests, are more defensible than others.

Below, I assess each of the connections that Singer identifies between Darwinism and politics, critiquing and extending his argument where necessary. Larry Arnhart’s attempt to derive conservative moral values from evolved human biology will then be used as a contemporary case study of the application of Darwinian ideas to politics. I argue that Arnhart fails in this attempt – a failure that underscores Singer’s emphasis on maintaining the fact/value distinction.

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Singer begins with a widespread (mis)conception about Darwinism: the idea that the direction of evolution is itself ‘good’ or ‘right’. According to Singer, it was this idea that led many on the right to fallaciously assume that “if Darwinism applies to human social behaviour, then a competitive marketplace is somehow justified, or shown to be ‘natural’, or inevitable”.⁷ The left’s unfortunate mistake, he goes on to argue, was also to accept these fallacious assumptions, and thereby to reject Darwinism in its entirety. Much of the contemporary left’s opposition to modern ETOHN, as evidenced in the preceding chapters of this thesis, appears based on this sort of misunderstanding of Darwinism’s implications.

In emphasising the fact/value distinction, Singer instead makes clear that because evolution just happens, we will never discover ethical premises in the bare details of our evolved nature. As illustration, he posits two potential facts about human nature: (1) that we may have an evolved disposition “to repay favours one has received”, and (2) that we may also have evolved tendencies “to join in group acts of violence against people who are not members of our own group”.⁸ His point is that even if such tendencies exist, this in itself does not tell us what we *ought* to do – that, for instance, we ought to foster the first of these traits, or that we should restrain the second.⁹

From the standard leftist perspective, however, Darwinism could not be true because, if it were, a more egalitarian or socialist society might prove unattainable. In effect, the left are here mirroring the right’s fallacious belief that *is* implies *ought* (e.g., ‘competition is natural, therefore society ought to be competitive’) with the equally fallacious idea that what *ought* to be the case with nature therefore *is* the case (e.g., ‘society ought to be cooperative, therefore human nature is cooperative’ or ‘society ought not to be competitive, therefore human nature is not competitive’).

Evolutionary psychologist Steven Pinker dubs this latter idea the ‘moralistic fallacy’, in which “Nature, including human nature, is stipulated to have only virtuous traits (no needless killing, no rapacity, no exploitation), or no traits at all, because the alternative is too horrible to accept”.¹⁰ Rejecting modern evolutionary theory’s ‘selfish gene’ concept on moral rather than scientific grounds, for instance, illustrates

this sort of fallacious moralistic reasoning. Science writer Matt Ridley, meanwhile, describes the widespread tendency to argue from *ought* to *is* more prosaically (and more provocatively) as simply ‘political correctness’.¹¹

Although Singer does not use these terms, he too points out that the left’s view of what human nature *is* appears to be based on moral beliefs about what it *ought* to be. For example, in his analysis of Marx’s concept of human nature, Singer highlights the influential belief that undesirable traits such as selfishness, egoism or ambition are not inherent aspects our nature but simply the result of existing social conditions. According to Marxists, therefore, the advent of communism would end the socially-induced “antagonism between man and man” of earlier epochs, and humans instead “would find happiness in working with others for the communal good”.¹² A Darwinian view of unchanging or unchangeable human nature, by contrast, would seemingly deny this possibility: “Hence the resolute determination of many on the left to keep Darwinian thinking out of the social arena.”¹³

Singer uses the pseudo-science of Soviet agronomist T. D. Lysenko as an extreme example of the attempt to make nature conform to Marxist precepts. According to Singer, Lysenko rejected the Darwinian idea of competition within species as merely a capitalist justification for human social inequality. Lysenko argued instead that there “is no intraspecific competition in nature. There is only competition between species: the wolf eats the hare; the hare does not eat another hare, it eats grass.”¹⁴ When translated into practice, Lysenko’s pseudo-scientific ideas, which relied heavily on the erroneous Lamarckian concept of the inheritance of acquired characteristics, were a disaster.

Given that the ideological appeal of Marxism appears to have diminished in the decades since the collapse of communism, it could appear anachronistic of Singer to continue to critique the Marxist stance on Darwinism. However, much of the initial negative reaction to ETOHN was informed by Marxist ideology, and contemporary opposition to Darwinism remains heavily influenced by these earlier, ideologically based arguments.¹⁵ Moreover, as Singer makes clear, the modern left’s standard view of a malleable human nature still reflects that posited by Marx – i.e., that which arises almost entirely from the ‘ensemble of the social relations’.¹⁶

In relation to Singer’s initial discussion of the links between Darwinism and politics, therefore, the following points can be emphasised: that it is nonsensical to regard the course of evolution as right or good; that it is therefore fallacious to derive political values from the facts of evolution (as the right often did historically); that many on the left have mistakenly rejected Darwinism by accepting the right’s erroneous view of the implications of evolved human nature; and, finally, that the left has itself often committed the fallacy of conflating how human nature *ought* to be with how it *is*.

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The second connection between Darwinian thinking and political ideas identified by Singer is the view “that social policies may, by helping the ‘less fit’ to survive, have

deleterious genetic consequences”.¹⁷ Singer himself is sceptical of the merits of this argument: “[It] is, to put it charitably, highly speculative”. According to Singer, concern about the possible social costs of the ‘unfit’ surviving (and reproducing) relates most strongly to life-saving intervention for those with genetically linked diseases. The discovery of insulin, for example, has allowed many people with early onset diabetes, who otherwise would have died, to pass on this genetic disorder to their own children. “But no one would seriously propose withholding insulin from children with diabetes in order to avoid the genetic consequences of providing insulin.”¹⁸

Furthermore, he argues that cases of specific genetic disorders are very different from “the vague suggestions sometimes heard from the political right” that, say, providing social welfare for the unemployed merely allows them to reproduce and thus maintain ‘deleterious’ genes in the population: “Even if there were a genetic component to something as nebulous as unemployment, to say that these genes were ‘deleterious’ would involve value judgements that go way beyond what the science alone can tell us.”¹⁹

Here, Singer is being somewhat disingenuous. His earlier argument, for instance, focuses on the need to maintain the distinction between political values and scientific theories; that certain value judgements “may go beyond what science can tell us”, therefore, is in keeping with his own Darwinian left thesis, and it is thus inconsistent for him to dismiss the arguments of the political right on these grounds. Furthermore, as evidenced in the quotations from the *Descent of Man* above, Charles Darwin too was concerned about supposedly ‘inferior’ members of society outbreeding the ‘better’ ones.²⁰

In addition, while Singer is undoubtedly correct that any genetic component to something like unemployment is ‘nebulous’, it is not quite as straightforward to dismiss suggestions of a possible ‘genetic component’ to anti-social behaviours such as aggression or drug addiction, or that this may be a factor, say, in intergenerational family dysfunction. Of course, this is not to suggest that there actually *is* a strong genetic component to such behaviours, just that Singer has chosen a tenuous example that is relatively easy to dismiss.

Unfortunately, extending this argument, which includes the politically interesting but highly controversial question of eugenics, would take me too far from the current argument (and this, too, may be why Singer himself skirts the issue). Here, it is sufficient to indicate that Singer’s discussion of the possible genetic consequences of pursuing certain social policies is lacking in details – most especially, in any adequate discussion of some of the more problematic aspects of this topic. Yet in an age where genetic screening for medical and behavioural traits is becoming more and more practicable, this is obviously an area that requires careful ethical and political consideration. In relation to the social implications of genetic research, for example, it is not inconceivable that advances in genetic technology may be exploited by the wealthy to ensure advantageous traits in their children – thus potentially adding a distinct ‘biological’ element to present day social inequality. If

nothing else, if the left maintains its distance from Darwinian science, it will be increasingly marginalised in the debate over genetic technologies.

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The third link that Singer identifies between Darwinism and politics is the idea that understanding our nature in the light of human evolution could help identify potential obstacles to achieving our social and political goals. Philosopher Leslie Stevenson acknowledges a similar point: “If our biological nature predisposes us to think, feel, and act in certain ways, then we had better take realistic account of that in individual choices and in social policy.”²¹ Of course, Stevenson expresses this as a hypothetical – *if* we have such biological predispositions – and he also indicates the implications of the (equally hypothetical) alternative view of human nature: “If, on the other hand, we are products of society, and if we find that many human lives are presently unsatisfactory, then there can be no real solution until human society is transformed.”²²

The crucial issue, therefore, is over the facts of the matter: whether or not evolved human biology still exerts an influence over human behaviour. Obviously, as a political philosopher, Singer is not in a position to decide on the veracity of the science of human behaviour, and he concedes that “[t]he usefulness of the evolutionary information will, of course, vary in proportion to its reliability”.²³ Singer himself clearly believes that modern human behaviour is still likely to be influenced by our evolutionary history, and his philosophical argument concerns *what follows* from any such Darwinian view of a relatively fixed human nature. For the purposes of this thesis, which also accepts the likelihood of the on-going influence of human evolution, Singer’s broad Darwinian argument – that ETOHN may inform, but not determine, our political decision-making – will be accepted without further detailed discussion.

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Singer discusses a fourth, and (for him) final, way in which Darwinism may be relevant to political thinking: the argument that “All pre-Darwinian political beliefs and ideas ... be examined to see if they contain factual elements that are incompatible with Darwinian thinking”.²⁴ Here, Singer is most concerned with another, and more personal, ethical issue – the welfare of animals. Briefly, he argues that, “[b]y knocking out the intellectual foundations of the idea that we are a separate creation from the animals, and utterly different in kind”, Darwinism could allow us to recognise, and base policies on, “the similarities we identify between human and non-human animals”.²⁵ While Singer may indeed be correct in his evolutionary-informed view of the rights of animals, this aspect of his Darwinian left argument will not be examined further in this thesis.

Here, however, I would also extend Singer’s argument by suggesting that the concept of *pre-Darwinian* (or non-Darwinian) ideas be extended to contemporary

‘folk’ conceptions of human nature, those that are based on everyday observations of human behaviour, and which might indeed accurately identify *certain* aspects of our evolved nature. Specifically, I would argue that some widespread views of human nature – for example, the rightist idea that humans are self-interested or competitive – are partially correct, and that the left’s (wishful) denial of such facets of our nature is politically counter-productive.

For example, while the ‘success’ of present-day consumer capitalism may in fact be premised on certain evolved aspects of human nature, this does not mean that consumer capitalist society is therefore the best sort of society for human beings – most especially because such a society limits more meaningful human flourishing. The problem is that if leftists deny capitalism’s basis in human nature, this simply plays into the hands of free market ideologues: shopping malls and mindless (over-) consumption do satisfy some of our basic evolved desires, and to deny this is to run the real risk of being dismissed as unrealistically utopian.

The left’s current reluctance to accept Darwinian reasoning concedes the intellectual high ground to the (capitalist) right, even though the latter’s position may not be particularly ‘high’ or ‘intellectual’. A more effective argument would be to challenge the right’s supposedly ‘common sense’ view of human nature with a more complex and nuanced alternative – that is, one based on a Darwinian appreciation of the multi-faceted and often contradictory nature of our evolved behaviour. Yes, humans can often be egotistical and desirous of status, and these aspects of our nature can indeed be satisfied in a consumer capitalist society; at the same time, such a society cannot easily satisfy the equally evolved human desires for fulfilment and happiness that may arise, for example, through camaraderie or selfless social engagement.

Singer’s argument that pre-Darwinian political ideas must be made compatible with modern evolutionary thinking, therefore, can be expanded to include informed criticism of the simplistic ‘Darwinian’ beliefs about human nature sometimes put forward by those wishing to defend modern-day consumer capitalism.

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Singer’s Darwinian left argument – or, more specifically, his emphasis on the fact/value distinction – contrasts directly with that put forward by Larry Arnhart in the latter’s *Darwinian Conservatism* (2005). Indeed, Arnhart’s evolutionary-informed political beliefs are those that many on the left fear would inevitably result from the application of Darwinian reasoning to human social behaviour. Here, therefore, Arnhart’s Darwinian argument will provide a useful case study of a contemporary attempt to derive political values directly from the (supposed) facts of human nature.

Like Singer’s *A Darwinian Left*, Arnhart’s *Darwinian Conservatism* is a polemic, aimed at convincing a sceptical political audience of the merits of an evolutionary perspective on human social behaviour. However, unlike the left’s traditional opposition to ETOHN, which focuses on Darwinism’s historical role in justifying inequality and the political status quo, traditional conservative disquiet

towards evolutionary theory also has religious overtones – as Arnhart himself acknowledges: “Many conservatives regard Darwinian evolution as a key idea for a scientific materialism that is morally and politically corrupting because it denies the moral dignity of human beings as created in God’s image.”²⁶

Arnhart, then, faces a difficulty that Singer does not (or, at least, does not face nearly as strongly): that the constituency at which his Darwinian argument is aimed is unlikely to accept evolutionary theory in general, let alone its application to human beings. In attempting to overcome this difficulty, Arnhart emphasises the way in which (in his opinion) a Darwinian view of human nature supports traditional conservative values – for example, by arguing that Darwinism confirms the traditional religious view that human nature “is imperfect because human beings are limited in their knowledge and their virtue”.²⁷

A crucial claim in Arnhart’s *Darwinian Conservatism* is that “there are at least twenty natural desires that are universal to all human societies because they are rooted in human biology, and these twenty natural desires provide a universal basis for moral experience”:

Human beings generally desire a complete life, parental care, sexual identity, sexual mating, familial bonding, friendship, social status, justice as reciprocity, political rule, war, health, beauty, property, speech, practical habituation, practical reasoning, practical arts, aesthetic pleasure, religious understanding, and intellectual understanding.²⁸

This selection of natural and universal desires, according to Arnhart, is supported by anthropological evidence of “hundreds of human universals, which are clustered around the twenty desires on [this] list”; psychological studies which “recognize these twenty desires as manifesting the basic motives for human action”; data from surveys of what is psychologically important to people, which “confirms the primacy of these twenty desires”; Aristotle’s review, in the *Nicomachean Ethics* and the *Rhetoric*, of “the common opinions of human beings about what is desirable in life, [which] includes the twenty desires”; and, the recorded history of human civilisation since the development of agriculture, which “shows human beings as motivated by these desires”.²⁹

While this collection of apparent universal human desires could be challenged on various grounds (for example, how does one equate a child’s ‘desire’ for parental care, say, with the supposed group ‘desire’ for political rule or for war), I will here assume that Arnhart has identified certain facets of human behaviour that may, in turn, be based on an underlying evolved human nature. The relevant issue here is how Arnhart attempts to justify these desires as the ‘universal basis of morality’, and how this relates to Singer’s emphasis on the fact/value distinction.

According to Arnhart, these particular universal desires allow individual humans to distinguish good from bad, with the ‘good’ simply being that which satisfies these desires, and the ‘bad’ being that which denies these desires. He is aware that this claim apparently conflicts with the fact/value distinction – the

philosophical argument, as he put it, “that we cannot infer moral values from natural facts because what we ought to do is not the same as what we actually do. So from the fact that we desire something, we cannot infer that it is good for us to desire it”.³⁰

Arnhart counters this philosophical point by claiming that “there is no merely factual desire separated from a prescriptive desire, which would create the fact/value dichotomy”:

Whatever we desire we do so because we judge that it is truly desirable for us. ... Whenever a moral philosopher tells us that we ought to do something, we can always ask, Why? And ultimately the only final answer to that question is, Because it’s desirable for you as something that will fulfil you or make you happy.³¹

The morally good society, in this account, is one in which our natural desires are satisfied; in this state we are happy or fulfilled, with this happiness or fulfilment having meaning only in relation to the satisfaction of our evolved desires. Given this, Arnhart suggests: “If the good is the desirable, then the satisfaction of our natural desires constitutes a universal standard for judging social practice as either fulfilling or frustrating human nature”.³²

Arnhart’s claim that our natural desires *motivate* moral judgment, in other words, equates to the claim that our desires both determine and define our moral sense: that which leads to the satisfaction of the desirable is morally good, that which frustrates the desirable is morally bad. At this point, Arnhart’s argument appears to touch upon concepts of desire satisfaction that are central to many consequentialist moral theories, such as the (classic) utilitarian belief that ‘right’ or ‘good’ actions are those that, ultimately, produce the most happiness.³³ In Arnhart’s case, the state of having satisfied our natural desires would, presumably, equate to utilitarianism’s desired end result of greater happiness, and as such, this would be a morally good state.

However, as indicated in the classic utilitarian phrase, ‘The greatest good to the greatest number’, a crucial aspect of such consequentialist beliefs is the *maximisation* of happiness (or desire satisfaction). This provides one means to evaluate conflicting desires – that which brings about the most happiness is the most good. Arnhart, however, fails to provide such a mechanism for evaluating between conflicting desires: his claim is simply that “something is good insofar as it is desirable”.³⁴

The problem that arises here can be illustrated by considering Arnhart’s description of the natural ‘desire for sexual mating’:

Human beings generally desire sexual coupling. In every human society, there is intense interest in sexuality. Social regulation is needed to manage the conflicts created by sexual competition. For example, the prohibition on incest is universal. Incest between mother and son is so rare as to be almost inconceivable for most people.³⁵

In Arnhart's scheme, satisfying the evolved desire for sexual mating is morally good. Thus, presumably, the general human desire for sexual coupling and the intense interest in sexuality is also morally good (although, here, traditional conservatives might disagree about the 'morality' of a keen interest in sex). What though of the 'social regulation' of 'sexual competition'? That is, if morally good sexual desire sometimes leads to sexual competition, on what moral basis would anyone accept the social regulation that would deny this desire? Or, if social regulation is itself a natural desire (perhaps an aspect of the 'desire for practical habituation'), by what means does this desire morally outweigh the individual desire for sex? Indeed, denying sexual desire would, in Arnhart's scheme, apparently constitute morally bad behaviour.

A consequentialist emphasis on *maximisation* of desire satisfaction could perhaps overcome these objections – for example, if social regulation of sexual desire brought about greater overall happiness/satisfaction, this would be preferable – but, as already indicated, Arnhart fails to discuss different degrees or levels of satisfaction. Nor indeed does he discuss how conflicts of interest between individuals with different desires may be evaluated (in utilitarianism, each person's happiness counts the same). Furthermore, for Arnhart to introduce such consequentialist reasoning into his system of morality would require him to qualify his argument that "twenty natural desires provide a universal basis for moral experience". For example, he would have to suggest that a 'desire for' utilitarian outcomes, say, was also a feature of human moral nature (which would appear implausible) or that human reason also plays a crucial role in our moral decision-making.

This latter, acknowledging that reason may be used in moral decisions, appears sensible, and Arnhart elsewhere highlights the use of "*prudential judgement* to make trade-offs between competing goods or between lesser and greater evils".³⁶ However, this is not how he defines his system of morality, which is based solely on evolved feelings or desires. Appealing to reason would undermine his claim that we derive our moral beliefs directly from our evolved nature – for example, an appeal to reason would allow us to question why the *fact* of having certain desires or emotions thereby justifies the ensuing *beliefs* as moral. In other words, use of reason would lead to the very *is/ought* distinction that Arnhart wishes to avoid – the point, emphasised by Singer, that facts do not determine values. This, then, is a major flaw in Arnhart's account of morality: whence our ability for 'prudential judgement' if our ethical sense is derived solely from evolved emotions?

To continue with the analysis of 'the desire for sexual mating': why Arnhart chooses to comment specifically on mother/son incest is unclear, but that such behaviour is 'almost inconceivable for most people' does not mean that, if necessary, we cannot morally judge it. Indeed, even if someone *desired* to behave in a manner that was 'inconceivable' to others, by Arnhart's own reasoning, this would be morally good. Here, he does not appear to take into account that what is desirable, and therefore morally good, for one person, may be undesirable, and hence morally bad, for another.

Similar problems arise with his subsequent bald statement about father/daughter incest (for which he provides no further explanation): “Incest between father and daughter is a more common problem. In comparison to women, men, on average, tend to be more violent in their sexual jealousy and more promiscuous in their sexual interests.”³⁷ In this case, the moral claim that such incest is a ‘problem’ is not sanctioned by Arnhart’s own definition of morality as merely the satisfaction of desire. Furthermore, in addition to implying that male sexual promiscuity is natural and therefore good, Arnhart elsewhere emphasises the universality of male dominance over females (see below); thus it appears to follow from Arnhart’s own logic that if a male *desires* to sexually dominate a female, even his daughter, then this is morally virtuous.

Arnhart’s conservative Darwinian perspective on male/female relations – that which epitomises what many on the left assume is an inevitable consequence of evolutionary reasoning – highlights similar problems with his simplistic account of (supposed) biological facts and political values. In his discussion of the evolved nature of political rule, for example, Arnhart states:

Human politics is also a sphere for male dominance. No political community has ever been a true matriarchy. Even though women often exercise great power, and even dominance, in other areas of life, and even though women often enter the political sphere, the public arenas of political life, and especially highest positions, are generally dominated by men.³⁸

Most modern evolutionary theorists would agree with Arnhart that evolved biological differences between males and females may underlie observed social differences between the sexes or, as in this case, the observed differences in male and female political behaviour. Peter Singer, for example, uses an evolutionary argument to explain why males outnumber females in high status position in politics and business.

Mindful of the fact/value distinction, however, Singer does not use this evolutionary argument to *justify* observed sex inequality. Arnhart, by contrast, dismissive of this distinction, commits the same fallacy as earlier Social Darwinists – that is, he assumes that observed human behaviour is ‘natural’, and that what is ‘natural’ is therefore right. For example, in his extended discussion of ‘Why men rule?’, he concludes that “male dominance of politics is rooted in human biological nature”³⁹ – and hence, given that morality too (in his view) is rooted in human evolved biology, that this male desire for political dominance is naturally ‘good’. In this clear example of a fallacious ‘appeal to nature’, therefore, Arnhart uses observed facts of human behaviour (here, that men often seek to obtain dominant social positions) to defend the naturalness/rightness of male political hegemony.

And if men’s nature leads them to dominate, what of women’s nature? It would come as no surprise to leftists that Arnhart argues: “Women tend by nature to be more nurturing, more attentive to children, and less physically aggressive. Most women find their greatest happiness in being married and having children.”⁴⁰

It might be factually true that women, in general, are less aggressive than men, but this fact tells us nothing about the social roles that women *ought* to adopt – indeed, it could be used as an argument for why women might make better political leaders than men, especially if the latter’s ‘evolved nature’ may make conflict more likely. Thus, while Arnhart uses many (plausible) evolutionary *facts* in his political arguments, the point is that his moral or political *beliefs* simply do not follow from these facts.

As a further example, Arnhart claims that: “On average, men desire to mate with young beautiful women, while women desire to mate with men who have social resources and high status.”⁴¹ Such a claim is apparently supported by modern evolutionary research – for example, by the evolutionary psychology finding that, across cultures, men tend to be more sexually attracted by visual indications of youth and fertility than women, with the reverse true for indications of status and resources. (While this could be further qualified – both sexes are more attracted by kindness and humour, for example – this is not germane to the present argument.)

But what possible moral or political conclusions could we draw from this apparent sex difference? That men *should* ‘mate with young beautiful women’? Or that women *ought* to ‘mate with men who have social resources and high status’? If we follow the logic of Arnhart’s argument, this is exactly the ‘moral’ conclusion we may have to reach. Such a conclusion, of course, is not reflective of the conservative values that Arnhart wishes to promote, thus he is forced to concede: “Most men restrain their restless and thus disruptive desire for promiscuous mating to satisfy their desire for monogamous fidelity and parental care.”⁴² Again, while this appears a common-sense claim that competing desires should be traded off against each other, Arnhart’s own moral argument fails to provide a mechanism for doing so. (And indeed, a cursory glance at actual human behaviour might lead one to question the existence of a ‘desire for monogamous fidelity’.)

Similar criticisms may be made of Arnhart’s discussion of the supposed evolved human ‘desire for war’. According to Arnhart:

Human beings generally desire war when they think it will advance their group in conflicts with other groups. Human beings divide themselves into ethnic and territorial groups, and they tend to cooperate more with those people who belong to their own group than those outside their group. So when competition between communities becomes severe, violent conflict is likely. Human beings desire war when fear, interest or honor move them to fight for their community against opposing communities.⁴³

Here, Arnhart’s broad observations appear factually true. However, Arnhart is not merely describing the fact that humans go to war in certain circumstances, his is also making a normative claim: that because we often desire war, and because (as he earlier emphasises) the desirable is the morally good, that we therefore *ought* to go to war, or that war is a good thing if it is what we desire. (By which reasoning,

depending on whose perspective we adopt, the 9/11 attacks are as morally justifiable as the subsequent USA invasion of Iraq, or indeed the Nazi conquest of Europe.)

An alternative interpretation of human history, based on similar general observations of human behaviour, is that humans have the potential for aggressive behaviour; that, in certain circumstances, human beings act or react violently; and, that violence or the threat of violence is a possible strategy adopted by individual humans or by groups of humans to further their aims. This, though, is very different from the claim that a desire for war (which Arnhart does not differentiate from other forms of violence) is an inevitable and even desirable aspect of human behaviour.

Here again, Arnhart takes what is quite possibly a universal aspect of human societies – violent conflict – and, without more detailed definition, interprets it as an inherent facet of human nature. Among numerous other objections to this argument is the point that, if the desire for war were inherent to all humans, then large and largely peaceable societies, such as those of the affluent West, would be near-impossible. Further, Arnhart's simplistic argument allows little room for moral judgement about war; in his account, it is simply a natural human behaviour (one of his clearly identified '20 natural desires'), and thus a moral one.

Despite the obvious inadequacy of Arnhart's analysis, many leftists may here assume that this sort of conservative or right-wing interpretation of human behaviour is all that a Darwinian perspective can provide. Unfortunately, in rejecting *this* sort of pseudo-Darwinian argument, those concerned with conflict resolution, say, or sexual inequality may reject *all* insights that a Darwinian perspective may provide on the ultimate causes of human conflict or inequity. Arnhart is not wrong that there may be a biological basis to the behaviours that lead to war or to sexual inequality; he is wrong to suggest that this in some way justifies that behaviour or its outcomes.

In summary: Larry Arnhart's *Darwinian Conservatism* is significant in being a contemporary attempt to apply modern ETOHN to right-wing political beliefs. As such, Arnhart's work epitomises many of the left's deep misgivings about what Darwinian theory implies for human social behaviour. Yet, while Arnhart's political conclusions (especially those concerning the 'natural' roles of men and women, and the 'naturalness' of war) may be pernicious if they became widely accepted, this is not because these arguments follow from the facts of an evolved human nature.

At most, Arnhart's twenty 'natural desires' may identify a core of common human predispositions, but his attempt to equate morality with the satisfaction of these 'desires' is a disaster. In addition, Arnhart's conservative conclusions, apparently sanctioned by science, demonstrate why an unwary left can so easily come to reject Darwinian science in its entirety.

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Larry Arnhart's failure to derive a 'conservative morality' from the (supposed) facts of human nature further validates Peter Singer's emphasis on the fact/value distinction. Historically, both the right and the left have been wrong to assume that the facts of our nature must dictate our political beliefs. Rather, the point is that if we

want to realise our political goals, we must begin with a clear understanding of the facts of human nature.

Nevertheless, while I broadly accept Peter Singer's analysis of biological facts and political values, and of the various ways in which Darwinian thinking connects with political debate, a number of problematic issues remain – most notably, the question of eugenics. To forestall further discussion, however, I will simply argue that, for the left to provide meaningful input into debate about the genetic consequences of intervention in human reproduction, it must first accept the relevance of biological theory to modern human behaviour.

A further, more abstract, issue is the relationship between *is*, *ought* and *can*. That is, while Singer argues that the facts of what human nature *is* do not directly determine what we *ought* to do, these facts nevertheless affect what we *can* (or *cannot*) do. According to Singer, evolved constraints on human nature suggest that the Marxist vision of a perfectly harmonious socialist society is unattainable; given what our nature *is*, it seems, humans simply *cannot* achieve such a society.

As Singer acknowledges in his final chapter, anyone who accepts a Darwinian left perspective on human nature would not “[e]xpect to end all conflict and strife between human beings, whether by political revolution, social change, or better education”.⁴⁴ He goes on to admit, his is “a sharply deflated vision of the left, its utopian ideas replaced by a coolly realistic view of what can be achieved”.⁴⁵

Singer's pessimistic but (apparently) realistic conclusions are premised on accepting the facts of human evolution. Thus, even if leftists were to acknowledge that *is* does not imply *ought*, another concern immediately arises from the fact that *ought* implies *can*. If human nature is infinitely malleable, as the left has traditionally assumed, this is not an issue: human nature (and human society) *can* become as it *ought* to be. This, then, is the subject of the next chapter – the traditional leftist belief that a malleable human nature presents few constraints on what *can* be achieved.

We are, as Simon de Beauvoir said, “l’être dont l’être est de n’être pas” – the being whose essence lies in having no essence.

Stephen Jay Gould, *Ever Since Darwin*

Chapter 6: Infinite Malleability

Anthropologist Margaret Mead’s *Coming of Age in Samoa* is wonderful to read. Despite being first published in 1928, it is surprisingly modern – not (or not just) in its exuberance and enthusiasm, but in its subject matter: the trials and tribulations of adolescence. Aside from a few dated references to buying stockings or coveting hats, Mead’s description of the rebelliousness of the typical teenage American girl in the 1920s, for example, could just as easily refer to the 2010s: “Parental disapproval of extreme styles of clothing ... a taste for cigarettes and liquor ... going to the movies, buying books and magazines of which her parents disapprove ... the desire for clothes and for amusement ...”.¹

Furthermore, given the popular cultural image of a more staid and more chaste past, Mead’s attitude to adolescent sex seems more appropriate to the post-‘Swinging 60s’ generation than to that which had just lived through The Great War (as it was then still called): “The present problem of the sex experimentation of young people would be greatly simplified if it were conceived of as experimentation instead of as rebellion, if no Puritan self-accusations vexed their conscience.”²

Yet why should we find the seeming modern-ness of Mead’s subject matter at all surprising? Could we not just conclude from these continuities in attitudes and behaviours, despite the massive cultural and technological changes that have occurred in the eight decades or so since *Coming of Age* was written, that teenage ‘angst’ is simply a stage that all youngsters (and their parents) go through? Ironically, if we did so, we would contradict the entire thesis that Mead herself presents – a thesis, moreover, that was (and is) hugely influential on leftist notions about human nature. Mead’s *Coming of Age in Samoa* provides some of the strongest evidence that human nature is infinitely malleable, and thus unconstrained by humanity’s biological past. It therefore epitomises the concept of human nature that Peter Singer explicitly rejects in *A Darwinian Left*.

In Chapter 1, I raised the idea of successive levels of ‘worst case scenario’ for the left in respect of human nature. At Level 1, in the ‘best case scenario’, is the view widely held by the left: essentially, that human nature is solely the product of social environment, and that desirable changes to this environment will result in desirable changes to human nature. This chapter examines two inter-related questions about this Level 1 scenario: why the left is seemingly committed to the view that human nature is malleable, and whether leftist political values are dependent on such a view of human nature.

I begin with brief background discussion of Margaret Mead’s Samoan research, and the evidence she presents to defend the concept of human malleability. Next, I assess the scientific basis of Mead’s claims by examining how her supporters have responded to subsequent criticisms of her research. I then address the assumption that a malleable human nature is indeed a ‘best case scenario’ for the left, and I conclude that such malleability may have political implications that would be decidedly unattractive to egalitarians. I use the human tendency to form status hierarchies as a case study of the dangers of overlooking our evolved nature, before, finally, turning to anthropologist Christopher Boehm’s thesis on the evolution of

egalitarianism to illustrate that Darwinian accounts of human behaviour need not be inimitable to leftist aspirations as often assumed.

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Mead's *Coming of Age in Samoa* was written to refute the then-prevailing idea that the causes of "conflict and distress" amongst young people could be ascribed to a defined developmental stage called 'adolescence' – "the period in which idealism flowered and rebellion against authority waxed strong, a period during which difficulties and conflicts were *absolutely inevitable*."³ (Indeed, the founder of modern anthropology, Franz Boas, notes this pervasive belief in his foreword to Mead's work: "When we speak about the difficulties of childhood and adolescence, we are thinking of them as *unavoidable* periods of adjustments through which *everyone* has to pass."⁴)

Working at a time when Social Darwinist and eugenic theories were politically prominent, Mead wished to test the established belief that 'nature' not 'nurture' determined human behaviour. Given the impossibility of conducting a "human experiment" in the laboratory to evaluate alternative theories of adolescent development, Mead turned instead to field-based anthropological observation "of human beings under different cultural conditions in some other part of the world" – i.e., people from "primitive groups who have had thousands of years of historical development along completely different lines from our own, whose language does not possess our Indo-European categories, whose religious ideas are of a different nature, whose social organisation is not only simpler but very different from our own". Mead opted to study the Polynesian people of the Pacific Islands, and in particular "to concentrate upon the adolescent girl in Samoa".⁵

As is evident in her anthropological description of 'A Day in Samoa', Mead discovered an incredible contrast between the lives of Samoan youngsters and those of their stressed and rebellious American peers. To understand why her work subsequently provided so popular and influential, it is worth quoting from her account, which begins at first light:

As the dawn begins to fall among the soft brown roofs and the slender palm trees stand out against a colourless, gleaming sea, lovers slip home from trysts beneath the palm trees or in the shadow of beached canoes, that the light may find each sleeper in his appointed place.

She details how the day progresses:

Girls stop to giggle over some young ne'er-do-well who escaped during the night from an angry father's pursuit and to venture a shrewd guess that the daughter knew more about his presence than she told. The boy who is taunted by another, who has succeeded him in his sweetheart's favour, grapples with his rival, his foot slipping in the wet sand.

And concludes as evening draws in:

Half the village may go fishing by torchlight, and the curving reef will gleam with wavering lights and echo with shouts of triumph or disappointment, teasing words or cries of outraged modesty. Or a group of youths may dance for the pleasure of some visiting maiden. ... Sometimes sleep will not descend

upon the village until long past midnight; then at last there is only the mellow thunder of the reef and the whisper of lovers, as the village rests until dawn.⁶

How can one *not* be stirred by such a vivid and idyllic picture of the uncorrupted life in a simpler society, especially in contrast to life in an industrial (or, today, post-industrial) one?

Yet Mead was not simply describing the free and promiscuous lives of Samoan youths compared to that of repressed Western adolescents. Rather, hers was also a *scientific* account of the reason for observed dissimilarities between human societies. According to science writer Matt Ridley: “[Mead] brought back from Samoa apparently hard evidence of a society in which a different culture had produced a very different human nature. . . . For fifty years Mead’s Samoans stood as definitive proof of the perfectability of man.”⁷

Significantly for leftist beliefs about the possibility of desirable social change, Mead believed that her findings provided an alternative to what many in her own society saw as the inevitable “turbulent manifestations”⁸ of growing up in a Western society:

The strongest light will fall upon the ways in which Samoan education, in its broadest sense, differs from our own. And from this contrast we may be able to turn, made newly and vividly self-conscious and self-critical, to judge anew and perhaps fashion differently the education we give our children.⁹

Of course, re-fashioning behaviour through deliberate changes to children’s up-bringing is more feasible if the human mind itself is ‘re-fashionable’ – that is, if human nature could be moulded by the social environment within which humans developed. Contrary to the prevailing hereditarian emphasis on fixed instincts and inherited behaviours, therefore, the Samoan evidence proved that human nature was, in fact, socially determined – and in Boas’ influential opinion, Mead’s research forcefully demonstrated “that much of what we ascribe to human nature is no more than a reaction to the restraints put upon us by our civilisation”.¹⁰ Indeed, the findings from Samoa indicated that human nature was malleable even at the most fundamental level; according to Mead, “neither race nor common humanity can be held responsible for many of the forms which even such basic human emotions as love and fear and anger take under different social conditions”.¹¹

Eight decades later, similar beliefs about the socio-cultural determinants of human behaviour remain prominent in the social sciences; for instance, professor of sociology Michael Kimmel, in summarising his critical discussion of biological approaches to gender, comments: “Scientists – social, behavioural, natural, biological – will continue to disagree as they hunt for the origins of human behavior. What they must all recognize is that people behave differently in different cultures and that even similar behaviours may mean different things in different contexts.”¹² Kimmel, moreover, uses Mead’s later research in New Guinea as evidence of the social construction of gender.¹³

Science journalist Robert Wright, who (in contrast to Mead and Kimmel) presents a biological perspective on human nature, nevertheless acknowledges the intellectual significance of *Coming of Age in Samoa*:

It is hard to exaggerate the influence of Mead’s findings on twentieth-century thought. Claims about [fixed] human nature are always precarious, vulnerable

to the discovery of even a single culture in which its elements are fundamentally lacking. For much of [the 20th] century, such claims have been ritualistically met with a single question: ‘What about Samoa?’¹⁴

Coming of Age in Samoa, therefore, provides an answer to why the left are wedded to the concept of a malleable human nature: if human nature really is, as Mead’s research indicates, infinitely malleable, then social reformers could indeed fashion a fairer or more harmonious society than that which currently exists. This is the sort of inspiring vision that motivates many on the left. The following discussion will examine why this stirring vision is very probably wrong.

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Peter Singer, while acknowledging that beliefs about human nature tend to vary along the political continuum, from malleable at the leftist end to fixed at the rightist, makes the point that these “are beliefs about a matter of fact and should be open to revision in the light of evidence.”¹⁵ Thus, while political scientists may be unable to decide which of the conflicting claims about human nature are scientifically valid, they can still determine whether these claims are actually scientific – for example, if and when new facts emerge, any theories that are closed to revision can be regarded as *non-scientific*.

In this respect, Singer notes the reaction to critical re-evaluation of Mead’s Samoan research by anthropologist Derek Freeman:

Freeman compiled a convincing case that Mead had misunderstood Samoan customs, which did not allow the kind of easy-going adolescent sexuality that Mead described. For this he was pilloried by his fellow-anthropologists, and the American Anthropological Association passed a motion denouncing his refutation of Mead’s work as ‘unscientific’.¹⁶

Commenting on the same issue, Matt Ridley argues: “The reaction of anthropologists to Freeman’s revelation was itself the perfect refutation of Mead’s creed. They reacted like a tribe whose cult has been attacked and shrine desecrated, vilifying Freeman in every conceivable way except by refuting him.”¹⁷ According to evolutionary psychologist Steven Pinker, meanwhile, the Mead/Freeman controversy merely exemplifies the critical reaction in the social sciences to research that questions the notion of a malleable human nature – indeed, in Pinker’s view, the response to Freeman was comparatively mild compared to other examples of anthropologists who posit fixed aspects to human nature.¹⁸

Furthermore, Pinker suggests that many social scientists simply pay lip service to the commonsense idea that genes or biology play some role in human development and behaviour, while retaining the (Mead-esque) belief that the influence of culture is of overwhelming importance. As illustration, Pinker notes the heated debates arising from challenges to the ‘social constructionist’ consensus on topics such as intelligence or parenting or sexual violence. Pinker’s point is not to unreservedly endorse this research, but to highlight the widespread unwillingness to include human biology as part of a wider analysis of these topics: “For invoking nurture *and* nature, not nurture alone ... authors have been picketed, shouted down, subjected to searing invective in the press, even denounced in Congress. Others expressing such opinions have been censored, assaulted, or threatened with criminal prosecution.”¹⁹

Thus, while Pinker acknowledges that any modern evolutionary claim about human nature “should be scrutinized and any logical and empirical flaws pointed out, just as with any scientific hypothesis”, in his opinion, the criticisms of modern ETOHN often go beyond the conventions of ordinary academic debate.²⁰ Other writers similarly document the caustic nature of the modern academic arguments about human nature.²¹

As discussed in earlier chapters, evolutionary or biological explanations for human behaviour do indeed appear unacceptable to many on the left – for instance, sociologist Hilary Rose’s summary dismissal of ‘facile’ Darwinian perspectives on global problems such as war, famine, disease or growing economic disparities.²² Michael Kimmel similarly (and sarcastically) presents the issue in terms of a mutually exclusive biology *or* culture: “Scientists have yet to discover the gene that carries the belief in nature over nurture; it is not yet clear which half of the brain blots out evidence of cultural or individual variation from evolutionary imperatives. Is human gullibility for pseudoscientific explanation carried on a particular chromosome?”²³ Again, there appears no allowance for interaction between nature *and* nurture here: if we accept Darwinian explanations, then we must also accept that evolutionary imperatives will ‘blot out’ any meaningful role for culture.

Be this as it may, the focus here is on the scientific assumptions that underpin particular concepts of human nature. Unlike faith-based religious beliefs, scientific theories are (or should be) open to continuous challenge and, in principle, to potential falsification. The aim of Mead’s own research, after all, was to test the dominant hereditarian theories of a fixed human nature, with the evidence that she uncovered challenging those particular assumptions. That many social scientists are apparently unwilling to accept subsequent criticisms of Mead’s work suggests an ideological commitment to the notion of human malleability, in addition to any scientific justification.

Obviously, the huge controversy that arose over Freeman’s work does not settle the case about the malleability of human nature (nor, indeed, does it ‘prove’ that Freeman’s re-evaluation of Mead was necessarily correct). Nevertheless, if the desire to refute prevailing biological determinist ideas did indeed colour Mead’s perceptions of Samoan society, she would have committed the very ‘sin’ often laid at modern Darwinists’ door – that of reading particular political beliefs into human nature. And it appears probable that this was indeed the case; for example, while otherwise defending Mead’s work, sociologist Michael Kimmel concedes: “Critics such as Derek Freeman have suggested that Mead, like the biologists she was criticising, simply found what she was looking for, especially in Samoa, where she apparently fabricated some details.”²⁴

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Mead’s *Coming of Age in Samoa* provides a particularly vivid example of why the left are attracted to the concept of a malleable human nature – not only is hers an aesthetically appealing account of a freer, easier way of life, but it also (supposedly) confirms the leftist hope that human beings and human society are perfectable. According to Singer, *this* is the crucial element of the leftist commitment to a malleable human nature; “the left’s Great Dream”, he suggests, is “The Perfectability of Man”:

Since Plato's Republic at least, the idea of building a perfect society has been present in Western consciousness. For as long as the left has existed, it has sought a society in which all human beings live harmoniously and cooperatively with each other in peace and freedom.²⁵

In Singer's opinion, Darwinism, and especially its emphasis on an unceasing struggle for existence, denies this Great Dream – and this, he suspects, provides “the ultimate reason why the left rejected Darwinian thought”.

According to Singer, the dream of human perfectability was central to Marx's influential vision of a future communist society. Darwin's evolutionary theory, therefore, created a dilemma for Marx and his followers. On the one hand, Darwinism provided a useful non-teleological explanation for the natural world, one that could scientifically challenge established religious justifications for the social status quo (and, in addition, the very idea of evolution appeared to match Marx's reformist beliefs about social progress and political change). On the other hand, Darwinism's emphasis on competition was incompatible with communism's supposed resolution of human antagonism and conflict.

Hence, in Singer's view, the ideological determination by Marxists to keep evolutionary explanations for the natural world distinct from socialist interpretations of the human world: the idea that “Darwinism is the science of biological evolution [and] Marxism of social evolution”.²⁶ Yet, as Singer points out, if we accept the evolutionary continuity between modern humans and their nonhuman ancestors, “it seems implausible that Darwinism gives us the laws of evolution for natural history but stops at the dawn of [human] history”.²⁷ At the very least, for the Marxist view of human beings to be scientifically credible, the apparent disjoin between humans and the rest of the natural world needs to be explained in Darwinian terms.

While philosophical enquiry cannot elicit the actual facts of human nature, it can indicate inconsistencies with the (supposedly) factual accounts that are presented (e.g., the implausibility of an abrupt disconnect between modern humans and their nonhuman ancestors). In principle, this would be part of the process by which human knowledge progresses, with claims and counter-claims being successively advanced to develop an increasingly accurate account of, in this case, human nature.

This process does not appear to have occurred with respect to leftist beliefs about ETOHN: despite huge advances in scientific understanding of human behaviour, the leftist view of human nature still appears to reflect that of pre-Darwinian Marxist theory. The assumption that motivates much leftist opposition to ETOHN is that to deny human malleability is to deny the possibility of desirable social and political change. Steven Pinker points to an inherent danger in such an assumption: “If we are not to abandon values such as peace and equality ... then we must pry these values away from claims about our psychological makeup that are vulnerable to being proven false.”²⁸

The important question that arises here, of course, is what it would mean for leftist values if human nature is not, in fact, malleable. Indeed, is a malleable human nature really the best case scenario for the left?

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The broad leftist position on ETOHN is that, if our biology or our genes ‘determine’ our behaviour, then social inequality is pretty much fixed. At first glance, the alternative, that our nature is malleable (through social conditioning, say) appears a

more appealing prospect – it suggests that changes to the social environment can change human nature for the better, and hence lead to a positive feedback of increasingly improved nature and society.

However, the malleable view of human nature also has darker implications. For instance, such a view implies that humans could be conditioned to accept any form of social organization, good or bad: malleable humans could accept slavery, say, as readily as equality. Indeed, given the ‘right’ social environment, humans could presumably be conditioned to mutely accept inequality or injustice; in which case, an environmentally-determined society could be as unjust or unequal *and* as unalterable as any biologically-determined alternative.

These issues can be illustrated with a poignant vignette from George Orwell’s *The Road to Wigan Pier*. In this extract from his Depression-era social commentary, Orwell describes catching a glimpse through his train window of a young working class woman trying to unblock a drain at the back of a “row of little grey slum houses” in an industrial town in northern England:

I had time to see everything about her – her sacking apron, her clumsy clogs, her arms reddened by the cold. She looked up as the train passed, and I was almost near enough to catch her eye. She had a round pale face, the usual exhausted face of the slum girl who is twenty-five and looks forty, thanks to miscarriages and drudgery; and it wore, for the second in which I saw it, the most desolate, the most hopeless expression I have ever seen. It struck me then that we are mistaken when we say “it isn’t the same for them as it would be for us” and that people bred in slums can imagine nothing but the slums. For what I saw in her face was not the ignorant suffering of an animal. She knew well enough what was happening to her – understood as well as I did how dreadful a destiny it was to be kneeling there in the bitter cold, on the slimy stones of a slum backyard, poking a stick up a foul drain-pipe.²⁹

Although *The Road to Wigan Pier* provides one of the most moving denouncements of poverty that I have read, the most relevant point here is the claim that ‘it isn’t the same for them as it would be for us’ – a view of human nature that Orwell forcefully rejects. In this extract, Orwell is attacking the callous indifference of the rich; those who believe that, because the poor are born and bred in poverty, they cannot really ‘suffer’ from it in the same way that those born in more privileged circumstances would. Ironically – or, rather, tragically – this is also a conclusion that would arise from the (leftist) notion of a malleable human nature, one conditioned by social environment. That is, if human thought and behaviour is entirely the product of social and cultural experience, then Orwell may simply be wrong: those bred in slums may indeed be incapable of imagining anything but the slums; moreover, they would not necessarily ‘suffer’ in the same way as other human beings who had been brought up in a different environment.

To relate this to Darwinian perspectives on human behaviour: one of the central claims of modern ETOHN, and, in particular, of evolutionary psychology, is that there is a *universal* human nature and that important aspects of emotion or behaviour will be shared by all human beings. From the ETOHN perspective, all normal humans will experience suffering in a similar way – thus, given such a view, we could not simply brush aside demands to ameliorate human suffering with the claim that ‘it’s not the same for them as it is for us’. According to the social

conditioning position, by contrast, such a dismissive attitude to ‘suffering’ could in fact be possible.

Furthermore, the idea that social environment is the *sole* determinant of human nature overlaps with the relativist beliefs examined in Chapter 3. In its extreme forms, epistemic relativism suggests that human beliefs and behaviour would vary indefinitely between people, and peoples, as the result of differences in sex, social class, culture, and the like – in which case, it really would be different for *them* than it is for *us*. Importantly, while epistemic relativism is often thought of by its adherents as politically liberating (as a means, say, to challenge the prejudice and vested self-interest of those in power), it also has more sinister implications: for example, that humans could be habituated to accept oppression or even conditioned to ignore or dismiss the suffering of others. By contrast, if humans share similar natures and similar capacities for suffering or for empathy, as ETOHN presuppose, then any justification for inequality premised on the (relativist) argument that ‘it’s not the same for them’ is open to challenge.

Political philosopher Norman Geras, in his *Marx and Human Nature*, makes a related (though non-Darwinian) point about the dangers of the left denying the possibility of a fixed human nature. Geras begins by examining *why* many egalitarians might wish to reject the existence of human nature. He suggests that this is, in large part, a reaction to common right-wing or conservative arguments in defence of the status quo; the claim that existing social institutions simply reflect permanent or ineradicable aspects of unchanging (and unchangeable) human nature. Geras acknowledges “the frequency of this kind of suggestion: in reference to selfishness, greed, love of power, cruelty; to private property, social and sexual inequality, nationalism, violence and war, as well as any number of other things”.³⁰

However, Geras goes on to suggest that it is an unfortunate over-reaction by the left to dismiss the idea of human nature in this way. (Singer, of course, argues the same point about the left’s rejection of ETOHN: that they mistakenly accept the right’s interpretation of the political implications of an evolved human nature). Moreover, Geras argues that it is counterproductive for the left to deny the existence of certain constant features of human nature:

Where it concerns basic human needs, whether for adequate nourishment and other physical provision, for love, respect and friendship, or for freedom and breadth of intellectual and physical self-expression; where it concerns the identification of suffering and oppression associated with their non-fulfilment, and the attempt to remove such institutions as may be responsible for frustrating them – this is surely a central part of any socialist politics worth the name: the fight against what is inimical to human happiness. Could it be reactionary, in today’s world, to protest and act against hunger? Or against torture? And could not one – I do not say the only – motivation for doing so be a conception, an elementary conception, of the vital needs of any healthy human being, in virtue of human nature?³¹

According to Geras, the socialist belief in a radically different social order is itself dependent on human beings, as a species, having the *inherent* capacity to develop the qualities necessary to sustain such a society – that is, characteristics such as “civic intelligence, interest, responsibility; mutual sympathy or respect, a deep feeling of human equality, the ability to use and enjoy a very extensive individual freedom; and so on”.³²

This raises a significant objection to the concept of an infinitely malleable human nature: why would any social order be better (or worse) than any other if the human mind were simply a ‘blank slate’ upon which culture alone leaves its imprint? For example, on what grounds might egalitarians argue that their concept of society was more just than any other, equally possible social order? In Geras’ view, unless a desire for equality, or at least freedom from oppression, is intrinsic to human nature, there appears little basis to the socialist opposition to inequality. Far from being a reactionary belief, therefore, the notion of a substantive human nature is actually necessary to the left’s egalitarian aspirations.³³

Irrespective of which view of human nature turns out to be correct, the point is that widespread *assumptions* about the egregious implications of an evolved human nature, or of the progressive implications of a socially conditioned one, may not themselves be accurate. Even from a non-Darwinian perspective, the idea of an infinitely malleable human, as Geras points out, may be detrimental to the leftist cause itself. Thus, the ‘best case’ scenario for the left is not necessarily of a non-existent human nature, but rather of a nature that would both allow and flourish within the sort of more equal society aspired to by egalitarians.

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As both Singer and Geras argue, it is a mistake for the left to reject the notion of ‘human nature’ simply on the basis of its *assumed* political consequences. The Mead-esque view of human nature, for example, in which even such basic emotions as love, fear and anger are the result of social conditions, could initially appear attractive to egalitarians. On closer inspection, however, such a view could be equally appealing to would-be tyrants; given a malleable human nature, and the right social environment, a totalitarian dictatorship is as feasible as a socialist utopia.

To Geras, the crucial argument is not whether there is a human nature, but whether the likes of greed, violence and so on are its attributes: “The question whether certain, named characteristics are permanent and natural is neither to say nor imply that there are no permanent or natural human characteristics.”³⁴ Furthermore, according to Geras, those egalitarians who deny the existence of human nature may inadvertently reach a conclusion similar to that of many elitist, conservative or anti-democratic thinkers: that “the generality of humankind will be stupid or ignorant rather than intelligent, apathetic rather than interested, in awe of leaders and not capable of general responsibility; and too selfish, greedy and competitive to sustain any wide sense of human solidarity or community; afraid of too much freedom and unable to use it”³⁵.

Unfortunately, Geras is perhaps guilty here of defining what human nature *should* be rather than awaiting a scientific account of what it is. According to Geras, for example, the very idea of socialism or egalitarianism is infeasible unless, at a minimum, there exists a human nature capable of sustaining such a society. However, such an argument goes both ways: given the long historical record of human inequality, human nature also appears capable of sustaining vastly unequal societies. It is possible (indeed, likely from a Darwinian perspective) that human nature does have some of the attributes that Geras wishes to reject: humans are often greedy, violent, apathetic and in awe of their leaders, and there may well be (indeed, there are) Darwinian explanations for these aspects of our nature. In other words, in opening the door to the idea of a substantive human nature, Geras appears to be picking and choosing which attributes will and will not be admitted.

Geras' argument appears to over-emphasise the positive aspects of human nature – intelligence, cooperation, altruism, empathy, and so on – at the expense of the negative. From Singer's evolutionary-informed perspective, this too would be a mistake: that is, while it may indeed be a common ploy by reactionaries to highlight the more deplorable aspects of human behaviour, many undesirable traits may nevertheless be a real feature of our nature. For Singer, the point is not simply to exchange the left's tradition view of human malleability for a sanitised version of human nature, but for the left to adopt a realistic account of human nature, warts and all.

The anarcho-communist Petr Kropotkin (a near-contemporary of both Darwin and Marx), articulated a similar argument to Singer's. Kropotkin's most famous work, his evolutionary theory of *Mutual Aid*, was motivated in large part by a desire to counter (what Kropotkin believed to be) a dangerous misrepresentation of Darwin's concept of natural selection: that is, the over-emphasis on the 'struggle for existence' presented by many of Kropotkin's fellow Darwinists. Taking particular exception to Thomas Huxley's influential Darwinian belief that primitive human life "was a continuous free fight ... [in which] the Hobbesian war of each against all was the normal state of existence", Kropotkin argued:

[I]t may be remarked at once that Huxley's view of nature had as little claim to be taken as a scientific deduction as the opposite view of Rousseau, who saw nothing in nature but love, peace, and harmony destroyed by man. ... Rousseau had committed the error of excluding the beak-and-claw fight from his thoughts; and Huxley committed the opposite error³⁶

Kropotkin, like Singer a century later, insisted that social theorists take the actual facts of human nature into account in their political planning; that is, those facets of our nature, both good and bad, that could be revealed through Darwinian analysis. Unlike many other leftists before and since, Kropotkin resisted the 'Hobbesian' interpretation of Darwinism without blindly accepting a non-Darwinian 'Rousseauian' alternative. Instead, *Mutual Aid* emphasises the social or cooperative aspects of our behaviour as a means to mitigate the deleterious effects of other less desirable, but no less existent, facets of evolved human nature. In presenting this argument, Kropotkin anticipates Singer's own Darwinian left ambition: the desire to build a more cooperative society, informed by a *realistic* appreciation of human evolution.

According to Matt Ridley, Kropotkin's *Mutual Aid* poses questions that still reverberate through economics, politics and biology: "If life is a competitive struggle, why is there so much cooperation about? And why, in particular, are people such eager cooperators?"³⁷ Ironically, these are the very issues so often raised by the left in opposition to Darwinian theory; equally ironically, and as Kropotkin was well aware, these questions cannot be answered except through a deeper understanding of our evolutionary history. Human beings are evolved animals, and to understand why we are such 'eager cooperators' we must first understand how we have become such creatures.

Although Kropotkin's own Darwinian theory of sociality is flawed from the perspective of modern gene-centred evolution – as Singer points out, Kropotkin erroneously assumed "that individuals behave altruistically for the sake of a larger group"³⁸ – he was correct in his fear that an over-emphasis on competition and struggle would turn many leftists against evolutionary theory. Being thus blind to the

fact that human sociality is as much (if not more) an evolved feature of human nature as competition, leftists have tended to throw the social baby out with the competitive bathwater.³⁹

To return to the initial question: are leftist political values solely dependent on a malleable human nature? As this has already been addressed above – e.g., Geras’ argument that human beings, at the very least, must have the capacity for pro-social behaviour – this can now be changed to the related question: is a Darwinian perspective on human nature compatible with the leftist desire to create a more egalitarian society? At this point, I will simply answer this with a qualified ‘yes’. Human beings have evolved as a social species and everyday observation demonstrates our capacity for cooperative and altruistic behaviour, at least in some circumstances. The sort of evolutionary-informed approach to politics advocated by Singer, therefore, does not preclude the possibility of a more egalitarian society than currently exists; the question, rather, is of how much more? This is the subject of the next chapter, where I address the next level of ‘apparent ‘worst case scenarios’ for the left – that evolved human nature may impose constraints on what is and is not politically possible.

If little else, it is premature of the left to assume that a Darwinian account of human nature is inimical to its egalitarian aspirations. Indeed, it is potentially more damaging to the leftist cause to continue to ignore biological human nature than it is to accept the fact that we are evolved animals. Singer argues, for example, that human beings have an evolved tendency to form social hierarchies; if so, this has an obvious bearing on the likely success of leftist attempts to create a less hierarchical society. In the concluding sections of this chapter, therefore, the question of social hierarchy will be used as a case study of this aspect of Singer’s Darwinian left argument – that, by maintaining its ‘Level 1’ belief in a malleable human nature, the left may fail to achieve many of its political goals.

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Singer begins *A Darwinian Left* by contrasting the views about political authority of two of the 19th century’s great revolutionary figures, Karl Marx and the anarchist Mikhail Bakunin. Conservative political scientist Larry Arnhart uses the same example (more succinctly) in his *Darwinian Conservatism*:

(Arnhart) Against Marx, the anarchist Mikhail Bakunin warned that Marx’s ‘dictatorship of the proletariat’ would actually become a new ‘despotism of a governing minority’. ‘He who doubts this,’ Bakunin insisted, ‘simply doesn’t know human nature’. Marx responded by ridiculing Bakunin’s ‘hallucinations about domination’.⁴⁰

(Singer) The most tragic irony of the history of the past century is that the record of governments that have claimed to be Marxists shows that Marx got it wrong, and Bakunin’s ‘nightmares about authority’ were grimly prophetic.⁴¹

Marx’s mistake, Singer argues, was his concept of human nature as solely the result of individuals’ social environment or the product of “the ensemble of the social relations”.⁴² Of course, as indicated above, this view – and its corollary, that if you can change society, you can change human nature – was not unique to Marx; the notion of human perfectability stretches from Plato through Marx and Margaret Mead

and on to the present. Nevertheless, Singer focuses his analysis mainly on Marx because the claims of Marxism “and of broadly marxist (with a small ‘m’) thinking ... [still] affects much of the thought of the entire left”.⁴³

Given a Darwinian perspective on human behaviour, Singer sides with Bakunin. After noting the ‘nightmares’ of Stalin’s Russia, Mao’s China and Pol Pot’s Kampuchea, he argues: “To be blind to the facts of human nature is to risk disaster.”⁴⁴ Singer illustrates this argument with the near-universal existence in human societies of systems of rank: “To say that human beings under a wide range of conditions have a tendency to form hierarchies is not to say that it is right for our society to remain hierarchical; but it is to issue a warning that we should not expect to abolish hierarchy by eliminating the particular hierarchy we have in our society.”⁴⁵

For example, according to Singer, one of the ultimate reasons that hierarchies based on wealth, military power or Party membership quickly replaced the hereditary aristocracies in post-Revolution America, France and Russia was because of our inherent hierarchical nature. These evolved tendencies, he goes on to claim, manifest themselves “in all sorts of petty ways in corporations and bureaucracies”.⁴⁶ (Personal observation of the behaviour of many academics would confirm that they, too, are human – at least in this respect.)

Mindful of the fact/value distinction, Singer is quick to qualify his evolutionary-informed argument. While the evolved human tendency to form hierarchies could, for instance, help us “to understand the rapid departure from equality in the Soviet Union”, this does not therefore demonstrate either the desirability or the inevitability of social hierarchy. Rather, Singer simply emphasises “that getting rid of [hierarchy] is not going to be nearly as easy as revolutionaries usually imagine”.⁴⁷

Singer offers no suggestions for how the left might work to overcome the non-egalitarian consequences of the human tendency to form social hierarchies. He merely comments: “These are the facts that the left needs to grapple with. To do so, the left has to accept and understand our nature as evolved beings.”⁴⁸ This appears to be simple pragmatic advice for the left – that is, to take into account those aspects of our nature that may hinder our egalitarian aspirations without making the moralistic mistake of rejecting empirical evidence that we do have such tendencies. Moreover, by maintaining the distinction between facts and values, egalitarians could challenge the erroneous normative arguments that inequalities resulting from social hierarchies are ‘natural’ or justified.⁴⁹

Of course, as a professional academic philosopher, Peter Singer could be accused of being simply an armchair theorist about human nature. Thus, it is worth noting how Singer’s leftist political beliefs mirror those of anthropologist Christopher Boehm, whose egalitarian arguments are grounded in first-hand experience of human tribal societies and research into primate political behaviour.

The final section of this chapter, centred on Boehm’s more detailed Darwinian analysis of human hierarchical tendencies, will act as a concluding corrective to the left’s Level 1 assumption that Darwinian approaches to human nature can only have egregious political implications.

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Boehm’s evolutionarily-informed analysis of pre-historic human society initially appears to confirm a Rousseauian view of an ‘innocent’ human state of nature:

[B]efore twelve thousand years ago, humans basically were egalitarian ... They lived in what might be called societies of equals, with minimal political centralisation and no social classes. Everyone participated in group decisions, and outside the family there were no dominators.⁵⁰

Boehm suggests that this egalitarian existence subsequently diminished as human societies became larger and more complex: “For more than five millennia now, the human trend has been toward hierarchy rather than equality”.⁵¹ This anthropological account, therefore, appears compatible with both Rousseau’s belief in the corrupting influence of society and with traditional Marxist interpretations of progressive stages of human social development, beginning with an egalitarian ‘primitive communist’ stage of human history.

Nevertheless, according to Boehm, it is a mistake to assume from this that human social organisation is ‘naturally’ egalitarian or, given the apparent flexibility of human social arrangements, that underlying human nature is completely malleable, or that social factors alone determine whether societies are more or less equal. Boehm instead argues that humans actually have an evolved tendency to form unequal social ranking systems: “Our political nature favors the formation of orthodox hierarchies – hierarchies like those of chimpanzees or gorillas, or humans living in chiefdoms or states”⁵² and that “[b]asic aspects of our political nature (notably the tendency to form hierarchies) were formed far back in primate evolution”.⁵³

Yet, despite these evolved predispositions, what distinguishes us from our hierarchical or ‘despotic’ primate cousins, Boehm suggests, is that prehistoric humans developed social mechanisms (e.g., collective monitoring of others’ behaviour) to prevent would-be dominants from wielding over-much coercive social power. He describes this as a ‘reverse hierarchy’, in which subordinates could limit the despotic tendencies of politically ambitious individuals. In Boehm’s analysis, reverse hierarchies – and thus relative social equality – were a feature of much of our species’ existence, at least while human groups were small, and subordinates could individually or collectively enforce egalitarian behaviour. Unfortunately from an egalitarian perspective, with the later rise of larger and more complex chiefdoms, kingdoms and empires (and their eponymous rulers), human hierarchical tendencies again came to the fore, with subordinates less able to limit the coercive power of dominants.

Significantly, and despite the seeming retention of ‘despotic’ tendencies from our primate past, Boehm speculates that the egalitarian cultural environment that arose in prehistoric human societies allowed for the natural selection of a more altruistic human psychology: “our species (and our species alone) was given a unique chance to develop altruistic traits – precisely because social dominance hierarchies were definitely reversed for a long period of evolutionary time”.⁵⁴

In short, Boehm believes that humans have competing evolved hierarchical tendencies: a desire to dominate, and a desire not to be dominated. In his scheme, both tendencies are ultimately based on reproductive pay-offs – for example, being able to dominate allows greater access to sexual partners and more resources for offspring; being dominated, meanwhile, means less access to sexual partners and fewer resources for offspring.

According to Boehm, by curtailing particular individuals’ ability to dominate, our Palaeolithic ancestors found the means to collectively satisfy the evolved desire not to be dominated. In more complex later societies, those in which certain individuals were once again able to dominate others, the subordinated population

have periodically resisted this domination through peasants' revolts, slave rebellions and the like. (Indeed, modern political debates about the role of the state could be analysed in these terms: that the more egalitarian welfare state, in which 'subordinates' gain greater access to social 'resources', and the less egalitarian market economy, in which 'dominants' control more of the wealth, are both possible manifestations of these evolved human tendencies.)

Boehm relates his evolutionary argument to more recent political ideas. For example, he contrasts the idealistic philosophy of the likes of Rousseau with the practical political acumen of hunter-gatherers, who, as "utter realists about human nature", intuitively comprehend "the need for force in the hands of the rank and file as means of controlling the self-aggrandizing tendencies of their own leading citizens".⁵⁵ He further compares this intuitive realism with the sincere but naïve beliefs of Marx and Engels, whose 'Rousseauian' view of human nature led them to erroneously conclude that human society would naturally become egalitarian and cooperative as soon as the exploitative capitalism system had been overthrown:

In their anthropological naiveté, visionary communists everywhere failed to see that human hierarchical tendencies are simply too strong to allow dominant competition to evaporate and the state to wither away on its own. The image was compelling, and it captured the hearts of resentful underdogs everywhere. But the social engineering was inept: the blueprint was not laid out with an accurate view of human political nature."⁵⁶

Boehm's thesis, therefore, is not that human nature renders egalitarian social organisation impossible; indeed, he argues that humanity's tens of thousands of years of egalitarian existence created the very conditions within which human cooperative and altruistic traits were able to evolve. Rather, his point is that, given the right political dynamic, human beings can indeed create cooperative egalitarian societies; given different circumstances, however, we can as readily form competitive, unequal or despotic social systems.

Thus, while new (and improved) political 'blueprints' and social experiments are possible, Boehm cautions that they must be based on a realistic appreciation of what humans are like: "In designing future political systems, we must take into careful account the flexible specificity of human political nature and the constraints it places on our behaviour."⁵⁷ Boehm's (field-based) political philosophising, therefore, mirrors much of Singer's (armchair) variety.

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In this chapter, I have examined the left's commitment to the idea of a malleable human nature, and the corresponding belief that human malleability is a necessary prerequisite for desirable social and political change. I have argued that the traditional leftist stance on human nature is ideological not empirical (especially in its opposition to contradictory evidence) and that, moreover, the notion of an infinitely malleable human nature may be less politically liberating than is often assumed. Indeed, the leftist desire for a more equal and more cooperative society itself appears dependent on the inherent sociality of a universal human nature.

I have emphasised the argument – articulated by the likes of Singer, Kropotkin and Boehm – that *all* aspects of our nature be taken into account in our designs for a better future society, and that, even if there are fixed, non-egalitarian aspects to our

nature, this does not necessarily preclude the creation of a much more equal society than any currently in existence.

An obvious (and obviously more sensible) position for political theorists to adopt is that nature *and* nurture, biology *and* culture, both play some role in determining or influencing human behaviour. But this just moves the argument up a level: Do our genes, for example, “shout commands to us about our behavior”, or merely “whisper suggestions”? (as ecologist Paul Ehrlich suggests).⁵⁸ This is the subject matter of the next chapter: the Level 2 ‘worst case scenario’ for the left – the idea that human evolution has resulted in a universal (and universally fixed) human nature.

We must, however, acknowledge ... that man with all his noble qualities, with sympathy which feels for the most debased, with benevolence which extends not only to other men but to the humblest living creature, with his god-like intellect ... – with all these exalted powers – Man still bears in his bodily frame the indelible stamp of his lowly origin.

Charles Darwin, *The Descent of Man*

Chapter 7: The Psychic Unity of Humankind

At first glance, the left's traditional belief that humans have largely broken free from the constraints of their biological heritage could seem reasonable. After all, humans did not need to evolve woolly coats to live in colder environments or bigger teeth and sharper claws to hunt the new animal species that they encountered as they spread across the globe. Rather, humans used culture to overcome the numerous environmental problems that they faced – for example, making new clothes or shelters for different climates, or developing new tools or techniques to exploit novel food sources.

Similarly, it does not initially appear unreasonable to suggest that the influence of biology has declined as humans have become increasingly dependent on culture. Given this, the notion that Darwinian evolution stopped (or at least increasingly tailed off) at 'the dawn of human history' appears plausible.

In this chapter, I turn to the Level 2 'worst case scenario' for the left – the claim that human beings have a universal and fixed human nature – and I examine why the left have (or may appear to have) genuine reasons to be concerned about a Darwinian approach to human politics. This marks a change of focus; for whereas this thesis has thus far argued that the left is largely misguided in its rejection of modern ETOHN, here I will play devil's advocate and highlight various difficulties with Singer's concept of a Darwinian left.

I begin with a general discussion of why the left might reasonably dismiss the applicability of evolutionary ideas to political theory, and then provide a brief evolutionary-informed response, illustrated by reference to concepts within the major sub-discipline of ETOHN, evolutionary psychology. I then turn to a troubling contradiction in *A Darwinian Left*: the manner in which, after initially suggesting evolutionary theory as a source of inspiration for the left, Singer concedes that his argument ultimately provides a 'deflated' vision for the left.

I contrast two broad historical visions of human nature and the possibility of social change: the 'tragic' view that social reform is constrained by a fixed human nature and the 'utopian' view that social transformation is possible due to the malleability of human nature. Aspects of Singer's argument appear to place him on the 'tragic' or conservative side of this debate, and again I illustrate this with reference to concepts from evolutionary psychology. I then briefly examine alternative evolutionary theories of human nature (which take human culture more closely into account). Finally, I highlight Singer's emphasis on the human capacity for reason as a possible means to overcome the constraints of our evolutionary heritage – an emphasis that places Singer firmly back within the utopian current of political thinking.

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There are obvious and understandable reasons to dismiss the relevance of human evolution to modern social behaviour. Everyday observation indicates (or appears to

indicate) a divide between the biological and the cultural aspects of human activity, with the latter being more distinctly human. Our biology, for instance, seems to determine only the basic elements of human life, such as our general anatomy and physiology, or to govern primitive ‘instinctive’ behaviours, such as the “animal functions – eating, drinking, procreating” to which humans are largely reduced, according to Marx¹, by the alienation of capitalist social organisation. By contrast, most aspects of uniquely human life, language, say, or technology or religious belief, are clearly acquired and passed on via social or cultural processes rather than being inherited through biological means.

The left could readily accept that Darwinian biological evolution moulded our pre-human ancestors, and yet argue that the cultural environment of modern humans, from our culturally-constructed cradles to our socially-sanctioned graves, now buffers us from the rigorous selective pressures that were so important in the earlier stages of our species’ pre-history. From such a perspective, the dawn of (non-Darwinian) history most likely began once humans had evolved the suite of capabilities – e.g., language and social intelligence, and hands capable of manipulating objects and constructing tools – that allowed cultural processes to increasingly usurp biological ones, and for cultural evolution to supersede biological evolution.²

Furthermore, the human ability to reason provides yet more distance between us and our biology. We are an intelligent species, able to reflect upon our actions and behaviour, and hence have the capacity to reason ourselves beyond the promptings of our biological past. More especially, the ‘blueprint’ for human life is not contained simply in our genes; in a manner unparalleled elsewhere in nature, human beings can store information externally to their bodies and brains – in oral traditions, say, or (more recently) in written or electronic form. Our species is thus unique in its capacity to access the accumulated knowledge of the past, and in its ability to add to and refine this information, and to pass it on to future generations. ‘Humanness’ is not simply (or even mainly) contained in our genes; it is inherited and passed on through our culture.

In short, the leftist emphasis on human culture, and its dismissal of human biology, is not obviously wrong-headed. Such a stance appears to accord with observations of human behaviour, and with a broad outline of human history and prehistory: after all, it was clearly human cultural practices and not human biology that allowed our species to spread across, and eventually to dominate, this planet. In addition, great changes in political and social beliefs and behaviour have occurred over timescales that preclude biological explanations (e.g., compare modern British society to that of Darwin’s day, and his society to that of feudal England only centuries earlier).

Thus, given that cultural practices clearly played a major role in creating the vast inequalities evident in the modern human world, it would appear plausible that, as egalitarians, we can and should change these practices. With regard to the central plea in Singer’s *A Darwinian Left*, egalitarians could indeed take seriously the notion that we are evolved animals without necessarily accepting that this is particularly relevant to our attempts to create a more equal world.

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How might an evolutionary-informed egalitarian (i.e., a member of Singer’s posited Darwinian left) respond to this seemingly commonsensical view of the limited significance of human biology in comparison to human culture?

For a start, the fact that human beings are utterly dependent on culture does not, in itself, imply that all biological influences on our behaviour have disappeared. The mutually exclusive dichotomy between culture and biology is a false one. Unfortunately, and as indicated in previous chapters, despite lip-service acknowledgement that genes and environment must both play a role in human development, this either/or dichotomy is a recurring theme of leftist discourse: that the only alternative to an exclusively environmentally-determined human nature is an exclusively biologically-determined one. And because the latter view of human nature denies the possibility of desirable social change, the former appears the only option for anyone who genuinely wishes to improve the world.

Of course, according to Peter Singer, the left could accept the fact that our evolved biology may still influence our behaviour without directly compromising its political values – for instance, the fact that humans may have an evolved tendency to form social hierarchies need not curtail our demands for a more equal society; rather, we simply use our evolutionary understanding of these tendencies to design political policies that mitigate their non-egalitarian consequences.

Importantly, even if we accept the precedence of culture over biology, evolved tendencies towards forming hierarchies could coexist with complex cultural behaviour. That is, while the traditional left simply assumes that culture has wiped the human slate clean of biological influences, this obscures the strong possibility that culturally-mediated behaviour builds upon, rather than displaces, more ancient biologically-mediated behaviour.³

According to Singer, the tendency to form social hierarchies is simply one of a number of human traits that are near-ubiquitous in human societies. Although Singer himself talks only in general terms of ‘Darwinian’ (i.e., evolved) influences on our behaviour, his beliefs about fixed human nature equate to the idea of the ‘psychic unity of humankind’ – the argument that many psychological traits are universal or species-typical for all human beings.

Evolutionary psychologists Leda Cosmides and John Tooby, for instance, point to the fact that “[o]ur ancestors spent well over 99% of our species evolutionary history living in hunter-gatherer societies”, and that all modern humans are the descendants of creatures who faced and overcame similar problems of survival and reproduction.

Generation after generation, for 10 million years, natural selection slowly sculpted the human brain, favouring circuitry that was good at solving day-to-day problems of our hunter-gatherer ancestors – problems like finding mates, hunting animals, gathering plant foods, choosing a good habitat and so on. Those whose circuits were better designed for these problems left more children and we are descended from them.⁴

In the standard evolutionary psychology scheme, the more recent abandonment of hunter-gatherer lifestyles by some populations was too recent to effect much further evolutionary change; therefore, the modern cultural differences we witness between different peoples are largely superficial. As popular science writer Matt Ridley argues: “Such evolutionary novelties as agriculture, metal and writing arrived less than three hundred generations ago, far too recently to have left much of an imprint on [the human] mind. There is, therefore, such a thing as a universal human nature, common to all people.”⁵

The point here is not to unreservedly accept evolutionary psychology’s

account of humankind's psychic unity, but rather to indicate, first, that it is certainly plausible that humans share certain evolved psychological traits in common, and, second, that such traits may continue to exist despite the increasing complexity of the human cultural environment. And this leads on to another important claim of modern ETOHN: that the seemingly obvious dependence of human beings on culture and reason has perhaps blinded us to the existence of deeper and more fixed tendencies and behaviours. According to anthropologist Donald Brown, for instance, his discipline's practitioners, through holding "a near monopoly on studying humanity as a whole", have had a major influence on our beliefs about human behaviour – but, he argues, anthropologists have prejudiced these beliefs by "dwell[ing] on the differences between peoples while saying too little about the similarities (similarities that they rely upon at every turn in order to do their work)".⁶

In contrast to what he believes is anthropology's traditional over-emphasis on difference, Brown describes a 'Universal People', which (he claims) represents a broad evolutionary-informed picture of what all people, all societies, and all cultures have in common. Evolutionary psychologist Steven Pinker describes Brown's argument thus:

Hundreds of traits, from fear of snakes to logical operators, from romantic love to humorous insults, from poetry to food taboos, from exchange of goods to mourning the dead, can be found in every society ever documented. ... [T]he sheer richness and detail in the rendering of the Universal People comes as a shock to any intuition that the mind is a blank slate or that cultures can vary without limit⁷

Again, the point is not to unconditionally endorse this evolutionary view of what all human beings share in common. It is merely to highlight a major problem with the standard leftist view of a malleable human nature – namely, the need for those holding such a view to explain why universal human commonalities exist. Why, if the human mind truly is infinitely malleable, has the behaviour of humans within separate societies not diverged to the point that these commonalities have been extinguished?

From a political perspective, the universalist view of human nature would not initially appear an obvious cause of alarm for the left. After all, if all humans share a common suite of mental traits, then the obvious differences in, say, cultural or technological complexity that convinced earlier theorists of the superiority of 'civilised' peoples over 'savages' are not due to innate cognitive differences. Rather, given that all humans share a similar underlying psychology, we must look to environmental causes for the differences between human populations and for the obvious inequalities that exist between peoples.⁸

This, in turn, appears to bolster the argument in *A Darwinian Left* that egalitarians should not be concerned about the possibility of a universal human nature, but rather about the consequences of failing to appreciate this fact. Viewed in this way, Singer's argument would appear to contain nothing but helpful advice for the left: that if egalitarians accepted a realistic account of human nature, and of the possibility of lingering biological influences on our behaviour, they could devise more workable, and less naïve, solutions to social problems. This could be seen as a form of consilience – bringing together the left's traditional emphasis on the cultural determinants of behaviour with the evidence emerging from modern evolutionary science that some aspects of our behaviour have deep biological roots.⁹

Why, then, would such a sensible seeming approach be described as the Level 2 ‘worst case’ scenario for the left? In order to answer this question, I will first examine some of the (inconsistent) arguments that Singer presents in *A Darwinian Left*.

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Singer begins *A Darwinian Left* with a bang and ends with a whimper. After insisting, in his introduction, that Darwinism could provide a source of new ideas and new approaches to revitalise the left, he concedes, in his conclusion, that his is a “sharply deflated vision”¹⁰ of what an evolutionary-informed left can realistically hope to achieve. Although he goes on to tentatively suggest that the human capacity for reason may provide “a prospect of restoring more far reaching ambitions of change”¹¹, this could provide little to motivate the ‘genuine left’ – that is, those who, in Singer’s own definition, do not just accept the unequal world as it is but who want to do something to change it.

The seeds of this uninspiring conclusion are evident, in retrospect, in Singer’s initial discussion of why the left is in need of new ideas. According to Singer, the modern left has been deprived of its former political power and influence not only by the failure of communism, but also by the way in which mainstream leftist parties have embraced capitalism and have turned away from the traditional socialist objective of industrial nationalisation, and from the left’s customary reliance on the trade union movement. Although Singer admits to having no answers to these issues, his argument nevertheless implies that the mainstream left has lost many of its leftist credentials – e.g., the more radical goal of transforming society – in its adoption of capitalist principles.

Sociologist Erik Wright makes a similar point when he comments: “There was a time, not so long ago, when both critics and defenders of capitalism believed that ‘another world was possible’. It was generally called ‘socialism’.”¹² Thus, irrespective of the vehement disagreement over the normative aspects of socialism, both sides at least accepted that some form of socialist alternative to capitalism was at least a possibility. Wright concludes, however: “Most people in the world today, especially in its economically developed regions, no longer believe in this possibility. Capitalism seems to them part of the natural order of things”.¹³

The key point here is that the mainstream left has apparently become less ‘left’ by becoming more realistic – and part of this process has involved abandoning much of its former utopianism. But this is where Singer’s own Darwinian left also eventually leads; to the argument that the left should give up grandiose schemes for radical political change, and simply work on what may ‘realistically be achieved’.

In other words, Singer appears caught in his own argument. The left’s urgent need for new ideas and new approaches, he suggests, is the result of its mainstream political parties giving up on large-scale social transformation, with what remains of the left’s radicalism remaining wedded to an unrealistic (and potentially disastrous) concept of a malleable human nature. Unfortunately, Singer’s proffered solution, a coolly realistic Darwinian left, itself ends up rejecting the possibility of radical social change (at least in the foreseeable future).

Far from being genuinely ‘leftist’, therefore, Singer’s subdued vision of the left would actually seem a form of political realism: the idea that politics is or should be simply ‘the art of the possible’. For example, from the realistic Darwinian left perspective, political decision-making would be based on a clearer understanding of

what *can* be achieved, rather than idealistic adherence to what *ought* to be achieved – a point that Singer emphasises in his summary dismissal of the absolutist moral theories that “tell us that justice must be done even if the heavens fall”¹⁴. From the realistic Darwinian left point of view, normative prescriptions of what we should do are tempered by what we are able to do – that while *is* does not imply *ought*, *ought* does imply *can*.

This realism reflects an inherent qualification to Singer’s Darwinian argument: that an evolutionary-informed approach to human behaviour can not only help in identifying the means to achieve our political objectives, but also in “assessing the possible *costs and benefits* of doing so”.¹⁵ And this raises an immediate (and, for the left, worrying) question: what if the costs of achieving a particular social goal – equality, say – exceed the benefits? For example, a truly egalitarian society might only be achievable through suppressing other important aspects of human nature, such as human individuality or the desire for recognition that motivates much of our behaviour. But what if the facts of human nature ultimately indicate that some (or perhaps many) of our political beliefs are unachievable – that, in practice, we *cannot* do what, according to egalitarians, we *ought* to do?

Singer himself offers little guidance. After emphasising that Darwinian thinking may provide relevant information for our ethical decision-making, he simply comments: “consequentialists like myself will always welcome information about the likely outcomes of what we are proposing to do.”¹⁶ Following this consequentialist logic, if a particular proposal is doomed to fail, given the facts of our nature, then there is no point in adopting it. Thus, it would appear that even if such an approach required the left to abandon certain of its cherished political objectives, this would be acceptable to a consequentialist like Singer – from his perspective, the costs of the left maintaining its utopianism outweigh the benefits.

In *A Darwinian Left*, therefore, Singer appears to provide an inconsistent argument. On the one hand, he argues that the left is desperately in need of new ideas, new approaches and new inspiration because its mainstream elements have lost their radicalism (while its radical elements remain unrealistically utopian). On the other hand, his ‘realistic’ Darwinian alternative itself questions the possibility of radical social transformation. Arguably, Singer offers less of a leftist take on politics and more of a moderate or ‘soft’ conservative one.

Here, I will further examine this seeming ironic contradiction in Singer’s Darwinian left: that it appears to have more in common with traditional conservative beliefs about the possibility of social change than with traditional leftist ones. My purpose is to present a negative picture of Singer’s Darwinian left – i.e., one that highlights why the traditional left might reject his argument – before examining more positive aspects of his overall thesis.

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The two visions of human nature discussed by Singer (i.e., malleable versus fixed) are themselves reflective of two broad currents of post-Enlightenment thought concerning political change.¹⁷ In the first current, traceable to the likes of Jean Jacques Rousseau, an unconstrained, malleable or ‘utopian’ vision of human nature places few obstacles in the path of rationally-directed social change: in order to bring about a better society, we simply identify, through reason, the social obstructions to such a harmonious future, and then we remove them. According to journalist David Brooks, for instance, this is the vision that inspired the American Revolutionaries and, to a

much greater extent, their French counterparts to “sweep away the old precedents and write new constitutions based on reason”.¹⁸

Those (leftists) who accept this unconstrained vision of human nature, therefore, emphasise the power of reason in resolving existing social problems and in rationally planning a better future society. According to conservative political scientist Larry Arnhart, “those with a utopian vision of life believe that since the moral and intellectual limits of human beings are rooted in social customs and institutions that are changeable, the best social order would arise from rationally planned reforms in those customs and institutions that would perfect human nature”.¹⁹ Erik Wright makes a similar point about the traditional leftist belief that we can transform society so as to promote human well-being and happiness:

[R]adicals of diverse stripes have argued that social arrangements inherited from the past are not immutable facts of nature, but transformable human creations. Social institutions can be designed in ways that eliminate forms of oppression that thwart human aspirations towards living fulfilling and meaningful lives. The central task of emancipatory politics is to create such institutions.²⁰

Wright goes on to indicate, however, that the ‘conservative critique’ of this sort of radical social transformation is not that the emancipatory goal is morally indefensible, “but that the uncontrollable, and usually negative, unintended consequences of these efforts at massive social change inevitably swamp the intended consequences”.²¹

Ironically, this conservative critique appears the very one that Singer makes against the left in his own alternative ‘leftist’ manifesto. In other words, Singer appears to be siding with the conservative opposition to emancipatory politics – for example, by arguing that, however desirable the leftist vision of a cooperative and peaceable society may be in theory, the left’s *radical* attempts to achieve such a society have proved disastrous due to its failure to take fixed human nature into account.

Indeed, in contrast to the left’s traditional utopianism, Singer’s ‘coolly realistic’ Darwinian left emphasis the political and social *constraints* imposed by human nature. For example, in asking how reformers can learn from Darwin, Singer uses the analogy of carving a desired shape from wood. Wood carvers will not simply follow a pre-prepared design, he argues: “Instead they will examine the material with which they are to work, and modify their design in order to suit its grain.”²² Political philosophers and reformers, he goes on to suggest, should adopt a similar approach: rather than working out an abstract plan for an ideal society and attempting to apply it without regard for the people who will inhabit this pre-conceived world, “those seeking to reshape society must understand the tendencies inherent in human beings, and modify their abstract ideals in order to suit them”.²³

Given the sort of uncharitable interpretation likely from the left, Singer could here appear to be sanctioning the second of the broad currents of political thought about social change – the ‘tragic’ or ‘constrained’ vision of what is possible. According to Steven Pinker, those who accept this ‘Tragic Vision’ emphasise the inherently limited wisdom and virtue of actual human beings:

In the Tragic Vision, moreover, human nature has not changed. Traditions such as religion, the family, social customs, sexual mores, and political

institutions are a distillation of time-tested techniques that let us work around the shortcomings of human nature. They are as applicable to humans today as they were when they were developed, even if no-one today can explain their rationale.”²⁴

It is understandable why leftists would resist any such argument as inherently reactionary. Yet, as regards Singer’s own view of human nature (or of ‘tendencies inherent in human beings’), the following all appear on his list of near universal human traits: xenophobia, racism, hierarchy, status seeking, war, male domination and female subjugation.²⁵ The point here is that, even if we reject the standard charge that Darwinism equates to determinism – that, say, racism or war or female oppression are *inevitable* outcomes of human nature – Singer’s deflated (or tragic) vision certainly implies that we may be limited in our capacity to alter these aspects of our nature.

Indeed, if we follow Singer’s wood-carving argument, we may even need to modify our abstract and idealistic opposition to undesirable behaviours like xenophobia or war to take account of the inherent tendencies of human beings. This politically troubling conclusion can be emphasised by briefly comparing Singer’s broad claims about evolved tendencies or predispositions with the most high-profile Darwinian account of how the human mind operates, that presented by evolutionary psychology.

Again, my aim here is to play devil’s advocate and to indicate why many leftists might misinterpret Singer’s position on Darwinism (and, indeed, why leftist critics such as Stephen Jay Gould have so readily convinced many people of evolutionary psychology’s pernicious right-wing agenda of biological determinism, elitism, sexism and racism²⁶). Singer’s own ‘wood grain’ analogy is not deterministic – rather, he is simply arguing that evolved constraints be taken into account – nevertheless, as I demonstrate below, for those predisposed to be suspicious of Darwinian thinking, it would be easy to gain a much more negative impression.

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Evolutionary psychology is premised on a domain-specific or modular conception of human mental behaviour – the idea, according to biologists Kevin Laland and Gillian Brown, that “minds are composed of a large number of psychological mechanisms dedicated to finding quick and efficient solutions to particular problems that were of significance to our ancestors”.²⁷ These psychological mechanisms (or mental modules or organs) are believed to operate in specific ‘domains’; that is, they are seen as discrete cognitive processes dedicated to tasks such as parenting, choosing mates, accruing resources, avoiding disease, or identifying predators.²⁸

Human language is the paradigm example of a domain-specific cognitive module. According to Steven Pinker:

Language is a complex, specialized skill, which develops in the child spontaneously, is deployed without awareness of its underlying logic, is qualitatively the same in every individual, and is distinct from more general abilities to process information or behave intelligently. For these reasons some cognitive scientists have described language as a psychological faculty, a mental organ, a neural system, and a computational module.²⁹

Pinker suggests that we think about language as an ‘instinct’ – “the idea that people know how to talk in more or less the same way that spiders know how to spin webs”.³⁰ And other mental organs or modules posited by evolutionary psychologists include those underlying face recognition, navigation, and the neural circuits that tell us, instinctively, that faeces are not good to eat.³¹

This becomes politically problematic when we turn to some of the supposedly universal features of human nature highlighted by Singer: xenophobia, racism, social hierarchy, sexual jealousy, and male domination and status-seeking. While Singer does not describe these features in terms of mental modules, unless they are solely culturally derived (in which case they would not be aspects of a universal human nature), they must somehow be psychologically ‘fixed’ in the human mind. Presumably, therefore, this is what Singer means when he talks about evolved tendencies or dispositions – that there is some specific neural circuitry that underlies, say, the evolved human predisposition to react jealously to sexual infidelity, or the male tendency to seek status.

But, on analogy with Pinker’s conception of language, to what extent are Singer’s universal behaviours *instinctive* – that is, psychological tendencies/dispositions that ‘develop spontaneously’, are ‘deployed without awareness’, or are ‘distinct from our general abilities to behave intelligently’? We could, for instance, use Singer’s Darwinian reasoning to come up with some troubling conclusions about xenophobia or racism. It is certainly plausible that our minds have been designed by natural selection to respond negatively to strangers – after all, strangers may carry diseases to which our group has not developed immunity, or may otherwise pose a threat to our lives. Thus, again plausibly, we may have adaptive mental circuits that trigger xenophobic reactions when exposed to unfamiliar humans or their unfamiliar behaviours. But, if so, to what extent can we control such evolved reactions? For example, we cannot help but react negatively to the smell of decaying food (the result, according to evolutionary reasoning, of a cognitive adaptation to prevent us eating the pathogens that such food contains). Could apparently universal xenophobic tendencies be of a similar nature?

Matt Ridley, for example, believes that racial persecution is an unfortunate but ingrained facet of human nature (the human nature that, as indicated above, Ridley believes is universal or common to all people). He argues that, while we can limit the effects of racist behaviour through legislation, “even after a thousand years of strictly enforced laws against racism, we will not one day be able to declare the problem of racism solved and abolish the laws safe in the knowledge that racial prejudice is a thing of the past”.³² Racist tendencies, it would seem, are simply an unfortunate example of the way in which we humans, according to Ridley, “stick to the same monotonously human pattern of organising our affairs”.³³ Singer’s xenophobia, hierarchy, status seeking, war, male domination and female subjugation would also appear to be tragically and inevitably human – and, from a traditional leftist perspective, Singer’s deflated vision of the left seems to reflect the broader ‘tragic’ belief that there is little we can do to change these undesirable aspects of human social behaviour.

For example, in warning that any well-intentioned but utopian social policy may have unintended consequences that are worse than the problems it is meant to resolve, Steven Pinker expounds the ‘tragic’ belief that:

We are fortunate to live in a society that more or less works, and our first priority should be not to screw it up, because human nature always leaves us

teetering on the brink of barbarism. ... It also follows that we should not aim to *solve* social problems like crime or poverty, because in a world of competing individuals one person's gain may be another person's loss. The best we can do is trade off one cost against another.³⁴

As described by Pinker, this tragic view of society – that it more or less works, so interfering with it (such as attempting to *solve* poverty) is not necessarily a desirable or viable option – appears to give strong grounds to a long-standing criticism of Darwinian accounts of human behaviour: the conclusion that current social arrangements are in some sense optimal.³⁵ Taken on face value, this appears to imply that the inegalitarian status quo, while imperfect, provides the only viable means for stable social interaction.

One final (negative) point can be made about Singer's 'realistic' approach to leftist politics, the important practical question: when does political realism become political defeatism? That is, the danger that such thinking may encourage the belief that little can be done to solve certain, seemingly intractable, social problems. An analogy here is the way in which certain health inequalities can come to be regarded as 'normal' for some disadvantaged groups – as, for instance, with diabetes amongst Maori New Zealanders.³⁶ When such issues become normalised – for example, with the attitude that, in this case, diabetes is just 'a Maori disease' – then political will to tackle these *seemingly* inevitable or ineluctable problems may be reduced.

The broader political aspects of this issue are emphasised by Erik Wright in *Envisioning Real Utopias*: "Self-fulfilling prophecies are powerful forces in history, and while it may be naively optimistic to say 'where there is a will there is a way,' it is certainly true that without a 'will' many 'ways' become impossible."³⁷ One obvious danger (or 'cost') of the left adopting Singer's realistic Darwinian approach, therefore, is that it may lose the will to find a way around the obstacles that an accurate evolutionary account of human nature may reveal. Indeed, Singer's Darwinian left would seem to confirm the left's long-standing belief that evolutionary perspectives on human nature are inherently conservative.

How, then, can we resurrect Singer's Darwinian left as a genuinely *leftist* approach to politics? In the next section I briefly discuss whether Singer's broad notion of evolved predispositions or tendencies does indeed bring with it the idea of strict constraints on what is politically possible. I then turn to Singer's concept of 'Darwinian thinking' – that is, whether or not his general evolutionary argument could or should be linked to a particular branch of modern ETOHN (for example, as above, with evolutionary psychology). Here, I examine alternative approaches to human evolution, and argue that Singer himself is perhaps being overly pessimistic about what Darwinian thinking implies about the possibility of desirable social change. In particular, I suggest that evolutionary psychology, despite being the most high-profile of modern ETOHN, may not provide an appropriate basis for Singer's Darwinian politics.

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One problem with Singer's discussion appears to be ill-defined concepts such as evolved 'predispositions' or 'tendencies'. What do these actually mean? If we equate Singer's vague 'tendencies' and 'predispositions' with evolutionary psychology's domain-specific or modular conception of the brain, then his account of evolved human behaviour appears worryingly deterministic. For example, as argued above,

human beings are biologically ‘predisposed’ to find the smell of faeces or rotting meat unpleasant. But this sort of predisposition is of a different order from, say, our apparent evolved tendency (to quote Singer) ‘to join in group acts of violence against people who are not members of our own group’. In other words, while our ‘yuk reactions’ are automatic, and non-consciously controlled, our violent behaviour is to a large extent ‘strategic’ (i.e., motivated and consciously directed to achieve particular goals); describing the latter as an evolved predisposition, however, implies it is more like the former – that is, ‘beyond our control’.³⁸

Nevertheless, this terminological imprecision is less important to Singer’s broad *political* argument, and it is perhaps inappropriate to link Singer’s Darwinian perspective to the more clearly defined focus of the likes of evolutionary psychology – especially as much of the success of evolutionary psychology has been in identifying possible evolved predispositions for certain *specific* behaviours in certain *specific* circumstances (e.g., reaction to threats). The extent to which evolutionary psychology’s ‘modules’ are generalisable to wider human behaviour, in which the environmental inputs are much more complex, is still open to question.³⁹

To put this another way, there is an obvious spectrum of ‘tendencies’ from the more fixed and more automatic behaviours (which are thus more amenable to evolutionary psychological investigation) and the more complex but more general tendencies of interest to social and political theorists. Singer is not, therefore, necessarily misguided in talking in general terms about evolved tendencies or predispositions, nor is it fair (as in the negative interpretation above) to equate these broad concepts only with the more basic ‘instinctive’ behaviours.

Another crucial issue is the apparent ‘weight’ that different approaches to human nature put on either biology or environment – or on either side of the nature/nurture dichotomy. Certainly, as the name itself implies, the *constrained* vision of human nature suggests that there are limits upon what is socially (i.e., environmentally) possible. Arguably, Singer’s broad concept of ‘Darwinian thinking’ is premised on an overly constrained reading of evolutionary theory, and this perhaps explains his pessimistic conclusion about the implications of a Darwinian approach to political change. This becomes apparent if we examine how evolutionary psychology (which, along with its precursor, sociobiology, has been most influential on wider perceptions of ETOHN) addresses gene/environment interaction.

As Cosmides & Tooby explain in their primer on the basic tenets of evolutionary psychology: “Genes *allow* the environment to influence the development of phenotypes. Indeed, the developmental mechanisms of many organisms were designed by natural selection to produce different phenotypes in different environments”.⁴⁰ They illustrate this relationship between genes and environment by asking the reader to imagine planting an arrowleaf plant seed (representing the genotype) in water (representing one environment) and another arrowleaf seed/genotype in a different environment, dry land. The environmental differences, they argue, will result in different phenotypes: in this case, the arrowleaf seed that germinates in water will develop wide leaves, while the one on land will develop narrow leaves.

But this doesn’t mean that just any aspect of the environment can affect the leaf width of an arrowleaf plant. Reading poetry to it doesn’t affect its leaf width. By the same token, it doesn’t mean you can get the leaves to grow into just any shape: short of a pair of scissors, it is probably very difficult to get the leaves to grow into the shape of the Starship Enterprise.⁴¹

Of most relevance here is the idea that while organisms display some developmental plasticity, the genes still set constraints. In the arrowleaf plant example (which, it should be noted, is used in Cosmides' and Tooby's discussion of *human* evolutionary psychology), the environmental influence on the genotype allows for broader or narrower leaves, but not spaceship shaped ones. At the same time, the genotype does not determine the development of the phenotype irrespective of environment (as an obvious example, there has to be sufficient nutrition).

By analogy with the arrowleaf, human genotypes would also produce different phenotypes in different environments – but only within limits. If we follow Cosmides' and Tooby's argument, then short of the political equivalent of a pair of scissors, humans should not be expected to lose their xenophobic predispositions or their competitive tendencies in, say, a cooperative or a cosmopolitan cultural environment. (Recall Ridley's point about racist tendencies being likely to persist, despite long-term legislative change.)

This is in line with Singer's more general political argument – the idea that evolved tendencies may still lurk beneath the surface of the human psyche. For example, human competitive tendencies re-emerged in the supposedly cooperative communist states, and, as periodic outbursts of ethnic hatred and violence indicate, xenophobia seems ever-present in human societies; as Singer argues, “racist demagogues hold their torches over highly flammable material” – and this is the case even amongst people, as in the Balkans, who live together peaceably for decades.⁴² Singer's broad notion of ‘Darwinian thinking’, therefore, seems to reflect that of evolutionary psychology, and especially its concept of a relatively fixed (or domain-specific) human nature that, despite differences between cultural environments, constrains our behaviour in universally predictable ways.

Crucially however, and unlike the environment in which, say, an arrowleaf plant develops, human phenotypes are the joint product of genes and a rich *socio-cultural* environment, one that includes attitudes, beliefs, customs, historical awareness and the human ability to reflect upon and to reason about their behaviour. At least as presented above, Cosmides & Tooby's discussion of the relationship between our biology and our environment appears to undervalue the depth and complexity of human cultural surroundings, and of the influences that this may have on human development and observed human behaviour. Indeed, according to Laland & Brown, a major criticism of evolutionary psychology, even from other evolutionists, is “that it underestimates the critical role of cultural transmission processes in shaping human knowledge and behaviour”.⁴³

For example, one obvious difference between humans and arrowleaf plants (or most other species) is that we can, to a greater or lesser extent, change our environment. Therefore, if human behaviour (as part of our ‘phenotype’) is the result of interaction between genes and environment, and if we have the capacity to manipulate this environment, this suggests that we may also have some capacity to modify our behavioural development. In other words, there is (potentially) a feedback relationship between human environments and human behaviour - that is, changes to the environment can affect human behaviour, and this changed behaviour can create a changed environment, which in turn would affect human behaviour, and so on. Add to this the human capacity to make *rational* changes to the environment and we have a far less pessimistic view of the potential for desirable political change than Singer's ‘deflated’ vision would imply.

In the following section, therefore, I will briefly examine an alternative

perspective on human evolution, one that raises the possibility of a more flexible or malleable human nature. In particular, I will look at the implications of the human capacity to change its environment, and assess whether this may provide a more appropriate model for Singer's Darwinian left.

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Philosopher of biology Kim Sterelny portrays humankind as a 'self-made species', able to 'engineer' its ecological, social and cognitive environments in a way that is unique in the natural world. Importantly, in contrast to the evolutionary psychology view of relatively fixed human behaviours, Sterelny argues that human beings are developmentally and behaviourally plastic. In outlining this argument, Sterelny, like Singer, emphasises the fact that we are evolved animals, but with a significant caveat:

In assessing evolutionary theories of human nature, we are right to be wary of theories that invoke discontinuities between humans and the rest of nature. Such theories have often been born out of special pleading; out of mindsets that have been reluctant to see us as part of nature. Nevertheless, this reaction can go too far. We are indeed part of nature, and are the products of mechanisms that made other species too. *Nonetheless, we are very unusual primates indeed. This too must be acknowledged and explained.*⁴⁴

For a start, human beings are a uniquely social and cooperative species (a fact that can be explained in evolutionary terms), and this in turn creates the uniquely complex social environment in which humans develop. In addition, according to Sterelny, human beings are outstanding 'ecological engineers' – through their social and cultural practices (e.g., *learnt* behaviours such as tool-making), humans can create environments that buffer them from the effects of the wider physical world.⁴⁵

In Sterelny's scheme, moreover, human ecological engineering (or niche construction) has cumulative or 'downstream' effects: the more humans change their environment, the more they are able to make further changes to their environment, with later changes building upon or being 'scaffolded' by earlier ones. And an important, and unique, aspect of human niche construction is that our species not only inherits genes from its ancestors, but also their knowledge and understanding. Thus, whereas the rest of the living world has only a genetic inheritance system, humans have a 'dual inheritance' system of genes *and* culture.

As a result of human sociality and the human capacity to engineer or construct a cultural buffer against a diverse range of physical environments (and to pass on this capacity non-biologically), our species has been able to colonise the planet, from icy tundra to scorching desert to steamy jungle. But this ability to adapt to different environments over the course of human history, in Sterelny's view, relies upon a unique level of malleability: "Hominid environments became more variable at a single time, and changed faster over time, for some of these changes were self-induced. These changes select for both behavioural and developmental plasticity."⁴⁶ In other words, in order to cope with novel physical environments, and with changing cultural environments, human behaviour became increasingly malleable.

This argument that the human mind became more plastic over evolutionary time, therefore, contrasts with the standard evolutionary psychology view that our modern skulls house a stone age brain – that the human mind is not designed for the modern world, but rather to solve problems that our ancestors faced over millions of

years as Pleistocene hunter-gatherers.⁴⁷ Evolutionary psychology's 'modular mind', in other words, implies a relatively fixed human nature. In Sterelny's alternative evolutionary account, the human mind actually became less fixed and more malleable precisely because human environments became less predictable as a consequence of humans themselves rapidly altering them. This possibility is also raised by Laland & Brown:

For humans, our capacity to create solutions continuously to self-imposed problems reflects the fact that we are very adaptable species. Moreover, to a degree that surpasses other species, human mental processes must contend with a constantly changing information environment of their own creation The flexible nature of our learning and culture allows us to survive and flourish in a broad range of settings. This adaptability means that, rather than being adapted to a particular environment, humans adapted to a broad range of environments that they and their ancestors were involved in constructing.⁴⁸

This implied criticism of evolutionary psychology also reflects that of other evolutionary theorists – for example, Bolhuis et al. conclude a recent review of the tenets of evolutionary psychology with the comment: "The key concepts of EP [evolutionary psychology] have led to a series of widely held assumptions (e.g., that human behaviour is unlikely to be adaptive in modern environments, that cognition is domain-specific, that there is a universal human nature), which with the benefit of hindsight we now know to be questionable."⁴⁹

Importantly, this is not to claim that evolutionary psychology's approach to human nature is therefore wrong; rather, it is to emphasize that it is only *one* such evolutionary approach. For instance, as regards evolutionary psychology's modular concept of the brain, Laland & Brown note that 'domain-general' and 'domain-specific' accounts of cognitive processes represent poles of a continuum, and that "Domain-general processes are no more incompatible with evolutionary theory than domain-specific processes".⁵⁰ In other words, some human behaviours may be determined by the more fixed processes emphasised by evolutionary psychology, while other behaviours, as the result of our dual inheritance system, say, may be far more malleable.

How, then, is this relevant to Singer's general concept of 'Darwinian thinking', and to the broader application of such thinking to human social and political behaviour?

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As more and more is revealed about human biological evolution, so too is more and more revealed about what we *don't* know, and of what else needs to be taken into account in any accurate picture of human nature. For example, given an appropriate political interpretation, Kim Sterelny's view of human behavioural and developmental plasticity seems to provide an evolutionary argument that, especially with its emphasis on the cultural determinants of human behaviour, is more in line with the standard leftist view of human malleability. Add to this the human ability to make rationally-directed changes to the social environment, and it would seem premature to make conclusive claims about how the 'constraints' of human nature could determine what is or is not politically possible.

Nevertheless, we can only begin to explore these possibilities by taking human

cognitive and behavioural evolution seriously. It might turn out that some of our social behaviour is firmly leashed to our evolved biological nature, and it may turn out that other behaviours are only loosely tethered. Importantly, this means we cannot simply assume, as utopians do, that anything is possible, nor, as conservatives do, that everything is constrained.

Admitting that ETOHN are still very much in their infancy, and that many of their findings are as yet provisional or speculative is not to accept that we must postpone applying ‘Darwinian reasoning’ (in the very general sense employed by Singer) to political theory. Indeed, the fact that we still do not know the extent of evolved constraints on our behaviour is a source of some optimism for the future – and this is where Singer tentatively suggests “a prospect of restoring more far-reaching ambitions for change”.⁵¹ Here, too, Singer implicitly draws his ‘deflated’ vision of the left back into the utopian current of political thought.

In his concluding comments to *A Darwinian Left*, Singer points out that “We are the first generation to understand not only that we have evolved but also the mechanisms by which we have evolved and how this evolutionary heritage influences our behaviour. ... For the first time since life emerged from the primeval soup, there are beings who understand how they have come to be what they are.”⁵² In his closing sentence, Singer suggests that this knowledge and understanding “may turn out to be a prerequisite for a new kind of freedom”.⁵³

Singer’s focus here is on our (evolved) ability to rationally reflect on our circumstances and the possibility that our capacity to reason might, over time, allow us to escape the constraints imposed by our biological heritage. Could we, for example, use our ability to reason not only to identify the socially imposed obstacles to creating a better society, but also the ‘biologically’ imposed ones? And could we then employ reason to not only overcome these obstacles but also provide lasting solutions to them?

In his *Darwinian Conservatism*, political scientist Larry Arnhart argues that evolved human predispositions set the limits to possible changes within human culture. Interestingly, Arnhart also provides an important addition to the usual concept of nature versus nurture, arguing that “instead of seeing an antithetical dichotomy of nature versus convention, we should see a three level nested hierarchy in which custom presupposes nature, and reason presupposes both nature and custom”.⁵⁴ In Arnhart’s opinion, the left’s rational attempts to change society go ‘against the flow’ of nature determining culture, and both determining reason: “if it is not to be an exercise in utopian fantasy, deliberate choice will always be constrained by human nature and human culture”.⁵⁵

But is it indeed the case that human reason ‘will *always* be constrained’ by nature and tradition? As Sterelny indicates, humans can, through technological innovation or conscious decision-making, manipulate and change their environments (including their cultural traditions) – and they can also, to a greater or lesser extent, control the environments in which other humans (i.e., infants) will subsequently develop. In other words, human reason is not obviously at the whim of nature and culture; we can reverse the flow (at least to some degree) and consciously change our environment. Anthropologist Christopher Boehm, for instance, argues that “through morality, humans can radically manipulate their behaviour”.⁵⁶

Indeed, Arnhart himself accepts that human reason does offer some limited latitude for change – for instance, that “mature adults can deliberately reflect on their individual habits and social customs so that they might reform some of these habits and customs, but without expecting a radical reconstruction that would sweep away

all that has gone before”.⁵⁷ But, from an egalitarian perspective, the question then becomes *how much* can we ‘reform’ our customs: a great deal of desirable egalitarian change, for example, could be effected without ‘sweeping away all that has gone before’. And the consequences of such change could also be cumulative – for example, a more tolerant society allowing for more tolerant attitudes which, in turn, creates a more tolerant society, and so on.

The broad notion of cumulative social change is evident, for example, in Steven Pinker’s recent *Better Angels of Our Nature* (2011). Here, Pinker argues that, over the long run of human history, our societies have become increasingly less violent – that, for example, the casual everyday violence accepted by Europeans only a few centuries ago (witch burnings, public executions, floggings and gratuitous animal cruelty) would now be unthinkable for modern Europeans. Pinker provides several explanations for this apparent decline in violence, including the effects of enlightened (i.e., rationally-directed) social and political change, with the dramatic abandonment of the millennia-old institution of slavery in the 19th century being a particular striking example.

The relevant point here is that while modern Europeans are unlikely to be ‘biologically’ much different from their forebears a few hundred years ago, at least as regards violence, they are *behaviourally* very different. In terms of the genetic and environmental influences on phenotypes, therefore, a less-violent environment presumably selects for (or at least allows) less-violent phenotypes, which in turn would create a less-violent environment. An interesting question then arises: what are the limits to this process? To someone in 1800, much less 1600, many of the changes in modern human social behaviour would have been unthinkable; might, though, the currently ‘unthinkable’ possibility of a truly peaceable society actually be realisable in the future? If this is indeed the case, then the socialist notion of changing the environment to change human nature may not be as unrealistic as those holding the ‘tragic’ vision suppose.

In *Envisioning Real Utopias*, Erik Wright suggests: “Nurturing clear-sighted understandings of what it will take to create social institutions free of oppression is part of creating a political will for radical social changes to reduce oppression.”⁵⁸ This, I believe, can be applied to Singer’s concept of a Darwinian left. Keeping its egalitarian aspirations clearly in view, the left must develop a clear-sighted understanding of the social *and* the ‘biological’ obstacles to a more equal society. This will prevent the left from forming impossibly utopian beliefs about radical social change, but it will also avert the tragic conclusion that today’s society is the best that can be achieved. Singer’s Darwinian left is not a ‘worst case’ scenario for the left: that honour would go to a left that continues to assume that human biology is irrelevant to our aspirations for emancipatory social change.

Old biases from many sources burrowed in and nestled at the heart of evolutionary theory, the most coherent and all-encompassing theory that scientists have ever had to explain the living world. ... Women were assumed to be 'naturally' what patriarchal cultures would socialize them to be: modest, compliant, non-competitive, and sexually reserved.

Sarah Hrdy *Mother Nature*

Chapter 8: The Descent of Man and the Ascent of Woman

In January 2005, at a conference on diversity at universities and research institutions, Harvard University President Lawrence Summers gave a speech addressing gender imbalances in science and engineering. Summers suggested three possible (though not mutually exclusive) explanations for the underrepresentation of women at the top levels of these fields, that: (1) women suffer disproportionately more than men from the demands of professional employment versus the demands of family and childrearing; (2) women differ from men in the relevant cognitive abilities, at least at the high end of the aptitude scale; and, (3) women are more likely to be discriminated against or otherwise discouraged from entering these professions than men.¹

In Summers' opinion, "the largest phenomenon, by far" in accounting for these observed gender imbalances was "the general clash between people's legitimate family desires and employers' current desire for high power and high intensity"² (essentially, that by being more likely to prioritise family and children, high-flying female scientists were disadvantaged in the job market compared to their more work-obsessed male colleagues).

In addition, Summers suggested that "in the special case of science and engineering, there are issues of intrinsic aptitude, and particularly of the variability of aptitude [between men and women] ... reinforced by what are in fact lesser factors involving socialization and continuing discrimination".³ In other words, according to Summers, the underrepresentation of women in the highest positions of science could also be because some men have more inherent ability in this field, and this factor possibly outweighs the undoubted impact of discrimination against women.

The massive furore that Summers' speech precipitated is summed up by psychologist Roy Baumeister: "After initially saying, it's possible that maybe there aren't as many women physics professors at Harvard because there aren't as many women as men with that high innate ability, just one possible explanation among others, [Summers] had to apologize, retract, promise huge sums of money, and not long afterward he resigned."⁴

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The possibility of evolved (intrinsic, inherent or innate) differences between men and women – at the psychological and behavioural level, in addition to obvious physical dissimilarities – is this thesis' Level 3 worst case scenario for the left. According to philosopher Raymond Belliotti, the question "are gender and reproductive roles natural or are they socially constructed?" is one "of the major sexual issues about which philosophers puzzle".⁵ Yet while philosophers (or social scientists generally) can indeed 'puzzle about' the underlying causes of gender roles, philosophical reasoning *per se* cannot answer this question. As elsewhere in this thesis, therefore, my concern is with the implications of evolved sex differences if they do indeed exist, or 'what follows if' observed inequalities in social outcomes between men and women do in fact have some evolutionary basis.

As the Summers' controversy indicates, this is very much a live topic in academic and public discourse. It is also a wide-ranging issue, with a long (and controversial) history. In this chapter, therefore, and in order to keep the discussion within manageable boundaries, I will largely confine myself to evolutionary based responses to Summers' argument – in particular, the commentaries provided by evolutionary psychologists Steven Pinker and Roy Baumeister – and to the related Darwinian account of human sexual behaviour raised by behavioural ecologist Sarah Hrdy.

Importantly, from the empirical perspective provided by evolutionary biology, it does appear plausible that some psychological and behavioural differences between men and women are likely to exist. At the very least, given that the existence of behavioural differences between the sexes is well documented in *non*-human animals, including our closest primate relatives, the onus appears to be on those who believe that human beings are an exception to the rule elsewhere in nature to explain how and why this is the case.

As indicated in previous chapters, an emphasis on the 'social construction' of gender is very much a feature of leftist (and feminist) thought, with the rejection of biological approaches to sex differences based on the belief that such accounts are socially or politically deleterious. In this chapter, I wish to explore a number of ways in which applying Darwinian reasoning to sex differences and to sexual inequality may not necessarily be as egregious as leftists often assume.

I will begin with an approach to evolved sex differences likely to elicit opposition from egalitarians: the conservative Darwinian argument presented by political scientist Larry Arnhart. I next examine Peter Singer's own Darwinian perspective on sex difference – one that, initially, seems to endorse the sort of conservative views articulated by the likes of Arnhart. I briefly examine possible feminist responses to evolutionary accounts of gender inequality, before arguing that the standard leftist assumptions about socially constructed gender roles are implausible.

I then assess various evolutionary arguments about likely psychological differences between men and women, and suggest that, even if such differences do exist, these need not derail our ambitions for a more sexually equal society. My overall conclusion is that awareness of the possible evolved basis of male and female behaviour may provide information about how to redress the undesirable consequences of this behaviour. Here, I also emphasise how a refusal to accept the possibility of sex differences may itself prove detrimental to the left's feminist egalitarian cause.

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Conservative political scientist Larry Arnhart identifies the standard leftist position on sex differences: "Liberals and socialists tend to agree with the gender feminist assumption that the behavioural differences between men and women are mostly social constructions rather than natural propensities, and as social constructions, they can be changed by social policy to promote an ideal of sexual equality in which sex differences would disappear."⁶

Given these assumptions, the leftist reaction to Lawrence Summers is understandable: by suggesting that observed sexual inequality may be due, in part, to cognitive differences between the sexes themselves, the Summers perspective casts doubt on the viability of leftist attempts at societal change. For instance, if men really

are intrinsically better at jobs in high-status professions like science, there appears little that can be done to bring about true gender equality in this area. And if gender imbalances in science and technology are the result of innate sex differences, then, presumably, so too might similar imbalances in wider society – for instance, the disproportionate number of men in all positions of high-status and authority.

Arnhart himself goes on to present an alternative to the left's 'social constructionist' view of gender inequality: the conservative belief "that many of the traditional differences between men and women manifest differences in their biological nature that cannot be radically changed, and that the attempt of social policy to bring about an androgynous society must bring emotional harm and social disorder".⁷

Peter Singer's Darwinian left initially appears to accept both Summers' explanations for gender inequality and Arnhart's conservative perspective on sex differences. For example, Singer points to the universality of sex roles in human social groups, in which women "almost always have the major role in caring for young children", while men "have a disproportionate role in the political leadership of the group".⁸ He also argues that "biological differences between men and women" may partially explain "the fact that there are fewer women chief executives of major corporations than men".⁹

How, then, does Singer justify these claims?

In *A Darwinian Left*, Singer argues that Darwinian thinking suggests that leftists too readily assume that all human beings are the same in all important respects. He applies this argument to human sex relations: "While Darwinian thought has no impact on the priority we give equality as a moral or political idea, it gives us grounds for believing that since men and women play different roles in reproduction, they may also differ in their inclinations or temperaments, in ways that best promote the reproductive prospects of each sex."¹⁰

Singer extends this evolutionary logic to explain certain obvious social inequalities between women and men. He begins by arguing that, because there is a physical limit to the number of children women can have, they are likely to be choosy about the men they take as mates.¹¹ Men's reproductive potential, by contrast, is limited only by the number of fertile females they can have sex with. Crucially, if high status increases the opportunities for men to have sex, then men will likely be more motivated to seek status than women.¹²

Further, in an argument echoing the one that caused Lawrence Summers so much grief, Singer questions the standard leftist belief that the massive over-representation of men in high status positions is solely the result of discrimination against women. He suggests this may instead be because "men [are] more willing to subordinate their personal lives and other interests to their career goals", and that psychological differences between men and women "may be a factor in [men's] greater readiness to sacrifice everything for the sake of getting to the top".¹³ For Singer, this is merely an example of the various ways that Darwinian thinking connects with ethics and politics, and he does not examine further the political implications of these apparent evolved sex differences.

What, though, might egalitarians make of the way in which 'Darwinian thinking' apparently connects with *this* particular ethical and political issue? Feminist Anne Fausto-Sterling indicates a number of questionable conclusions that people might draw from this sort of Darwinian reasoning: for example, that affirmative action to allow more women access to leadership roles "can only result in the hiring or promoting of inferior candidates", or that, however much women may desire to

shatter the glass ceiling, such an aspiration is unachievable “because, biologically, they have less of men’s innate ambition and willingness to take the risks necessary for success”. Fausto-Sterling acerbically concludes: “Discrimination against equally qualified applicants, it seems, no longer happens”.¹⁴

Thus, while the thrust of Singers’ (and Summers’) argument is that discrimination *alone* may not account for sex inequalities, there is undeniable truth to the claim that women do face numerous pernicious forms of discrimination, and that this is an important factor in present-day gender imbalances.¹⁵

As a single (and singularly apt) example of prejudicial assumptions about female psychology, consider the following by philosopher John Wilson in *Equality* (a 1960s book in the series, ‘Philosophy at Work’, aimed at applying philosophical concepts to ‘real-world’ issues):

[A]n egalitarian might wish to argue that since women as well as men are rational (or are equal in being rational), therefore to treat them unequally ... is wrong. But if we take ‘being rational’ to mean that women actually abide by the rules of a certain game – that they use logic rather than intuition, avoid *ad hominem* arguments, remain calm and unemotional during discussion, and so forth – then perhaps women are not equally rational.¹⁶

Given that we are only a few decades away from the ‘real world’ where egalitarian political philosophers like Wilson held the (apparently unremarkable) view that women are limited in their ability to be rational, it is not difficult to understand the critical reaction to Lawrence Summers’ more recent comments. Any number of further examples might be provided to show the prevalence of sexist and discriminatory attitudes, and how these feed back into prejudicial social behaviour and practices. Thus, even if we were to grant some basis in scientific fact to Singer’s evolutionary-informed argument, how do we disentangle the social causes of sexual inequality (including discriminatory beliefs) from *possible* ‘biological’ ones?

A danger in popularising or promoting images of ‘coy’ and unambitious women, say, or domineering and career-focused men – especially when given the veneer of scientific respectability – is potentially to make them self-fulfilling. If so, Singer’s evolutionary interpretation of sex relations may, ironically, reinforce the very inequality that a Darwinian egalitarian would wish to eliminate.¹⁷

How then might an evolutionary-informed left proceed? Essentially, by maintaining the fact/value distinction (e.g., Singer’s point that ‘Darwinian thought has no impact on the priority we give equality as a moral or political idea’). For example, Darwinian thinking suggests that men are likely to be more aggressive and more politically dominant than women¹⁸ – indeed, in summarising anthropological findings about sexual inequality, Stephen Sanderson points out that “we find a widespread, indeed a universal, pattern in which the institutional sectors of human societies are sexually asymmetrical; males monopolize political leadership; males monopolize warfare; and males monopolize a society’s high-status positions”.¹⁹ Yet, the fact that males universally monopolise power does not mean that this is the best or even the only possible social arrangement; indeed, as I argue below, the (evolved) male desire for power perhaps provides grounds for *denying* men that power.

Nevertheless, here the left appears in danger of accepting the ‘moralistic fallacy’ – of rejecting the possibility of evolved differences because this appears to contradict egalitarian beliefs about what *should* be the case. In the following section, therefore, I will examine why the left might find some of evolutionary claims about

sex differences unpalatable, but why these claims cannot simply be waved away.

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In many (especially academic) leftist circles even raising the possibility of sex differences violates a strong taboo. As Steven Pinker points out: “At some point in the history of the modern women’s movement, the belief that men and women are psychologically indistinguishable became sacred. The reasons are understandable: Women really had been held back by bogus claims of essential differences.”²⁰ If men and women really are psychologically near-identical, then existing inequalities (at least those not dependent on males’ greater size or strength) can only be the result of the differential socialisation of males and females; thus, the solution to these inequalities lies in changing the relevant social practices.

Nevertheless, this well-intentioned belief, and especially its emphasis on socialisation, stretches credulity. For example, as Sanderson argues, if male domination of political leadership and high-status positions, and female orientation towards child nurturing were solely the result of arbitrary socialisation processes, “then what we should find in the full range of the world’s societies is essentially this: About a third should be led by men, another third by women, and the remaining third by both men and women; about a third of the world’s societies should make women the primary care providers, another third should give men this role, and the final third should assign this responsibility to both men and women equally; and so forth and so on”.²¹

Sanderson goes on to emphasise that “this is not even remotely what we find”. Thus, given that a more likely explanation for the universality of sexual inequalities is some underlying element of universal human nature (i.e., one that leads human societies to consistently come up with similar patterns of social organisation), the onus is very much on those who oppose this view to come up with a better explanation, one that would also account for why humans would thus be unique amongst sexually-reproducing animal species.

Stephen Jay Gould, for instance, while remaining a fierce critic of many aspects of ETOHN, nevertheless acknowledges the likelihood of broad and general cognitive differences between males and females.²² His point, though, is that this still cannot explain the huge range of supposed sex differences proposed by (‘pop’) evolutionary psychology. Gould’s point is well taken. At the same time, however, given that we are descended from creatures whose sexual nature has a lineage of hundreds of millions of years, it does not appear unreasonable to accept that our evolutionary history may have more of a bearing on male/female differences than the left has traditionally believed.

The most relevant question here is whether the implications of evolved psychological differences between men and women are as detrimental to the leftist cause as is often believed (by both the left and the right). In the following (albeit selective) analysis of why such a conclusion is perhaps unwarranted, I will simply adopt the working hypothesis that there *are* likely to be differences between the sexes, even if, as Gould’s suggests, these differences may only be minor.

Importantly, even broadly general differences between the sexes may have significant consequences. Roy Baumeister, for example, argues that many of the differences in social outcomes between men and women, such as inequalities in salary, may have less to do with differences in *ability* and more to do with differences in *motivation*. Echoing Singer’s point that men appear more willing than women to

subordinate their personal lives to their career goals, Baumeister suggests that one of the causes of the gender wage gap may be that men are simply prepared to work much longer hours. According to Baumeister, for example, most workaholics are male, with one study suggesting that “over 80% of the people who work 50-hour weeks are men”.²³

Of course, an obvious alternative to the claim that differences in (evolved) psychology results in more male workaholics is that men are not socially restricted in the same way that women are, and that if these social restrictions were removed, more women would work longer hours too. Again, this argument is well taken – but it raises an issue that is pertinent to many environmentally-based objections to male/female differences: what is the *ultimate* cause of the social behaviours we see today? That is, even if gender roles are kept in place by social attitudes and practices, why did these particular differences arise in the first place?

In attempting to explain the universality of gender divisions, Stephen Sanderson argues that in all human societies throughout history tasks requiring long periods away from home base have been assigned to men. Women, by contrast, tend to be assigned tasks that keep them close to the home base – a finding “that is explicable in terms of women’s responsibilities for infant and child care, especially nursing of infants”.²⁴ This does not entail that this particular division of labour is, from a modern liberal perspective, fair or just (or even unchangeable), but simply that it is an optimal behavioural strategy given the type of animal we are. In Sanderson’s view, “the sexual assignment of work roles seems to be carried out in such a way as to promote the well-being of infants and children and thus the inclusive fitness of their parents.”²⁵ Ancestral males could afford to be absent for longer because they were less important to the day-to-day well-being of infants, especially pre-weaned ones. That such a pattern continues today, therefore, is possibly a reflection of these more deeply rooted behaviours.

Thus, morally unfair patterns of behaviour may have their ultimate cause in the amoral imperatives of human evolutionary history. The point is that explaining these behaviours in biological terms is not therefore to condone them. Similarly, the fact that inequalities are often sanctioned or reinforced by social beliefs and practices does not therefore deny the possibility of an evolutionary origin for these inequalities (or indeed for the social beliefs that sustain them).

With regard to Baumeister’s arguments about male/female differences in motivation, the important point is that such motivational differences may have a basis in evolved human psychology *even if* social attitudes and practices reinforce the relevant behaviours. Furthermore, according to Baumeister, while average cognitive differences between men and women are usually extremely small, nevertheless “when you look at what men and women want, what they like, there are genuine differences”. As an example, Baumeister points to the human sex drive:

Men and women may have about equal ‘ability’ in sex, whatever that means, but there are big differences as to motivation: which gender thinks about sex all the time, wants it more often, wants more different partners, risks more for sex, masturbates more, leaps at every opportunity, and so on. Our survey of published research found that pretty much every measure and every study showed *higher sex drive in men*. It’s official: men are hornier than women. This is a difference in motivation.²⁶

According to Baumeister, a gender contrast also occurs with musical ability:

women appear just as talented as men in performing music, he argues, but not in creating it – and the evident dearth of female composers cannot easily be put down to discrimination or discouragement. In Baumeister's view, even though women have similar musical talents to men they simply appear less motivated to create music.²⁷ If Baumeister is correct, therefore, some of the obvious gender divisions may not in fact be the result of major differences in ability or in psychology.

With regard to separate gender roles in parenting, for instance, relatively *minor* sex differences in 'emotional propensities' may have *major* social consequences. According to Sarah Hrdy, given the right circumstances, most male primates can be induced to display nurturing behaviour. Why, therefore, is it "almost always females who end up holding the baby?" – or, in a modern human context: "Why, even among bottle-fed babies with both parents working outside the home, does the traditional division of labor between father and maternal caretaker so often emerge?"²⁸

Gender ideology (i.e., that premised on socialization) provides no real answer, Hrdy argues, because cultural socialization cannot explain sex roles in non-human mammals: "There must be evolved emotional differences between males and females, differences that go beyond the two major physical differences, birth and lactation."²⁹ These initial psychological differences, Hrdy goes on to suggest, could be relatively slight compared with the magnitude of the resultant social differences between men and women. For example, while both male and female parents recognize the cry of a distressed infant, it is more salient for the mother than the father. Of course, the mother's greater responsiveness to signs of infant distress might be learned. "More probably", Hrdy suggests, "her lower threshold for responding to infant signals is innate".³⁰

According to Hrdy, the stereotypical social division between stay-at-home-mums and go-out-to-work-dads arises, not because fathers cannot be caregivers, but because parents unwittingly follow the line of least resistance: "a seemingly insignificant difference in thresholds for responding to infant cues gradually, insidiously, step by step, without invoking a single other cause, produces a marked division of labor by sex".³¹ This social disparity, in other words, is bought about by evolved predispositions *and* social expectations:

Where natural inclinations lead depends on how much effort is expended bending them back. Among humans, conscious effort can minimize preexisting differences. More often, small initial differences in responsiveness are exaggerated by life experiences and then blown out of all proportion by cultural customs and norms.³²

As with Baumeister's argument about motivation, therefore, relatively minor psychological differences between the sexes may underpin major social differences between the genders – in employment terms, for example, males' greater 'motivation' for work can result in higher earnings, while females' greater 'motivation' for family can result in poorly paid part-time jobs that fit around the needs of children.

None of this is to deny that social attitudes and practices allow men to escape many of the responsibilities of parenting, to the disadvantage of women. But regardless of whether work/family disparities are the result of differences in socialization or of differences in evolved psychology (or, as more likely, a combination of both), the political question remains the same: what is to be done about the resulting social inequalities? From an egalitarian perspective, the *cause* of

gender inequalities does not negate the moral imperative to do something about it. Indeed, if understanding the possible evolutionary roots of such inequality helps us discover solutions to it, Darwinian thinking would not, as many leftists seem to believe, turn out to be incompatible with feminist ideals.

However, before suggesting possible ways in which such thinking might be used to address gender inequalities, I will first examine a number of other relevant arguments about male/female differences – most especially the fact that, while men and women do not differ greatly *on average*, men show much greater variability than women. I will argue that this greater variability, itself explicable in evolutionary terms, could be the cause of much observed gender inequality – and that by acknowledging this fact, gender egalitarians may be better informed about ways to proceed.

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In Lawrence Summers' controversial speech on the possible causes of gender imbalances in science, his suggestions about sex differences in cognitive abilities were interpreted as a claim that men in general were more intelligent than women. In actual fact, according to Baumeister, the average IQ of males and females is pretty much the same.³³

However, Summers did not actually claim that the average intelligence of males was greater than females; rather he suggested that men showed more *variation* in intelligence than women, and that there may, therefore, be more men at the high end of the range of relevant cognitive abilities than women. Such variation between the sexes does indeed seem to be the case. According to Steven Pinker:

In many traits, men show greater variance than women, and are disproportionately found at both the low and high ends of the distribution. Boys are more likely to be learning disabled or retarded but also more likely to reach the top percentiles in assessments of mathematical ability, even though boys and girls are similar in the bulk of the bell curve.³⁴

Given this greater variance in intelligence, therefore, men and women could well be equally intelligent on average, and yet there still be more men with high-end (and with low-end) mathematical or scientific abilities.

Why then was Summers pilloried for making a claim based on factual evidence – evidence, moreover, that does not initially seem politically problematic? According to both Pinker and Baumeister, Summers had broken the strict academic taboo that gender imbalances must be regarded solely as the result of discriminatory social practices.³⁵

The greater male *variance* in intelligence, Baumeister argues, is part of the general pattern that men tend more to extremes than women – even with height, for instance, there are more really tall and really short men than women. And just as there are more men at the top of the social hierarchy, so too are there more at the bottom, “the criminals, the junkies, the losers”.³⁶

And the evolutionary explanation for the greater variance of traits amongst men is the same as that highlighted by Singer: the basic biological fact that males can, potentially, have far more offspring than females. As Pinker explains:

[N]atural selection favors a slightly more conservative and reliable baby-

building process for females and a slightly more ambitious and error-prone process for males. That is because the advantage of an exceptional daughter (who still can have only as many children as a female can bear and nurse in a lifetime) would be canceled out by her unexceptional sisters, whereas an exceptional son who might sire several dozen grandchildren can more than make up for his dull childless brothers.³⁷

(Importantly, this is not a normative argument: that is, the claim that women are possibly ‘slightly more conservative’ and men ‘slightly more ambitious’ is not a value judgment.)

Baumeister expands on this Darwinian explanation for sex differences with what he describes as “the single most underappreciated fact about gender”: that, according to DNA analysis, modern humans are descended from twice as many women as men.³⁸ This finding, Baumeister estimates, equates to about 80 percent of human women successfully reproducing over the course of our species’ history, but only about 40 percent of men.

Baumeister goes on to argue that this major difference in reproductive success very likely contributed to some significant personality differences between the sexes:

Most men who ever lived did not have descendants who are alive today. Their lines were dead ends. Hence it was necessary to take chances, try new things, be creative, explore other possibilities. ... Women did best by minimizing risks, whereas the successful men were the ones who took chances. Ambition and competitive striving probably mattered more to male success (measured in offspring) than female. Creativity was probably more necessary, to help the individual man stand out in some way. Even the sex drive difference was relevant: For many men, there would be few chances to reproduce and so they had to be ready for every sexual opportunity. ... In terms of the biological competition to produce offspring, then, men outnumbered women both among the losers and among the biggest winners.³⁹

Again, this is not a normative argument. The fact that personality differences likely exist between men and women – indeed, that it would be biologically bizarre if they did not – says nothing about whether particular traits or tendencies are ‘good’ or ‘bad’, just whether they were more or less successful in the biased lottery of sex over the long course of human history. Under natural selection’s remorseless gaze, the difference between ‘mediocrity’ and ‘great achievement’ is simply number of offspring: as Baumeister argues, “only a few men can achieve greatness, but for the few men who do, the gains have been real. And we are descended from those great men much more than from other men”.⁴⁰ (The estimated 16 million male descendants of Genghis Khan alive today graphically demonstrates Baumeister’s point.⁴¹)

Nor is this a deterministic argument – that, say, women will play it safe in all circumstances, or that men will take risks or try to dominate no matter what. For both men and women, social dominance is worth striving for if it can usefully be directed at promoting the interests of offspring or kin. At the same time, conservative behaviour may be appropriate for men in many situations, for example when they are older and established, and therefore have more to lose. The Darwinian argument simply predicts that, other things being equal, men and women are *likely* to behave in ways that better ensure their reproductive prospects; it therefore predicts, for instance, that a psychological focus on accruing status or dominance is more likely for men

than for women.

The above discussion indicates reasons to question the standard leftist view that socialisation *alone* explains gender imbalances. There are, in fact, good grounds to assume that sex differences do exist. Of course, this does not prove the matter either way. Here, lacking the expertise to decide the issue – and holding out the possibility that further evolutionary research might show that humans are an exception to what would otherwise be predicted – I will instead examine ‘what follows if’ observed gender inequalities *do* have some basis in males’ and females’ evolved psychology, and whether Darwinian thinking could provide useful information for those wanting to tackle the resultant social disparities.

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The first political point to make is that the probable existence of broad psychological differences between men and women does not undermine arguments for reducing gender inequality. An obvious example here is the egalitarian demand for greater provision of maternity leave and childcare. To the extent that parenting responsibilities fall more on women (for whatever reason), and to the extent that this results in social and economic disadvantage, this provides an argument for some form of equitable recompense. This is a standard egalitarian argument – but such an argument still stands (indeed, could perhaps be strengthened) even if some evolved sex differences underlie the inequality. In other words, the *causes* of inequality, whether cultural or ‘biological’ or both, do not impact upon the moral or political argument; the facts do not determine our values.

The second political point is that difference does not equate to deficiency. For example, as philosopher Jean Grimshaw indicates in her discussion of ‘The idea of a female ethic’, some feminists accept that “there *are* in fact common or typical differences in the ways in which women and men think about or reason about moral issues”.

This view is, of course, not new. It has normally been expressed, however, in terms of a *deficiency* on the part of women; women are incapable of reason, of acting on principles; they are emotional, intuitive, too personal and, so forth. Perhaps, however, we might recognise *difference* without ascribing *deficiency*; and maybe a consideration of female moral reasoning can highlight the problems in the male forms of reasoning which have been seen as the norm.⁴²

(While Grimshaw focuses on moral reasoning, this argument still stands with possible broad differences in male and female psychology, such as those highlighted by Baumeister and Hrdy above.)

This might serve to ease egalitarian concerns about the political implications of evolved sex differences, should they actually exist. According to Grimshaw, for instance, many feminists themselves believe that women are ‘naturally’ more cooperative and gentle, and less aggressive, than men.⁴³ Yet, while here this may be based more on wishful speculation than empirical research, how could this posited difference be taken as a deficiency? Were this belief true, it suggests that women are less likely to initiate conflict, or that they may be better able to resolve it if it occurs – in which case, this female difference is more a strength than a weakness. Furthermore, given that the political processes that lead to war have traditionally been dominated by more aggressive, less cooperative men, one potential means to avoid conflict could

be to give more political power to women.

Could explicitly Darwinian thinking also lead to similar conclusions – that is, could hitherto speculative beliefs about women’s more peaceable nature, and the possible political consequences of this, be more fully grounded in an evolutionary appreciation of human nature? In *The Better Angels of Our Nature*, an analysis of the apparent decline in violence in modern human societies, Steven Pinker briefly addresses this issue. After providing evolutionary explanations for gender gaps in “overconfidence, personal violence, and group-against-group hostility”, Pinker ponders three related questions: would the world be more peaceable if women were in charge; has it become more peaceful as women have gained more social sway; and, will it become even more peaceful if women acquire increasing political influence? “The answer to all three,” Pinker suggests, “is a qualified yes”.⁴⁴

The qualification is necessary, Pinker argues, because the relevant aspects of men’s and women’s psychology are not *that* different – while actual combat, for example, has been overwhelmingly a male activity throughout history, women have often supported, assisted in, or even led armies or nations to war (Boadicea, Elizabeth I and Margaret Thatcher are three examples from Britain alone of women leaders who were not averse to war).

Nevertheless, given that women are slightly *less* likely than men to support violent or forceful actions, Pinker argues that, over the course of history, “women have been, and will be, a pacifying force”. Furthermore, according to Pinker, a clear correlation exists between a society’s recognition of women’s rights and its attitudes to war:

Several ethnographic surveys of traditional cultures have found that the better a society treats its women, the less it embraces war. ... We don’t know what causes what, but biology and history suggest that all else being equal, a world in which women have more influence will be a world with fewer wars.⁴⁵

Here, Darwinian thinking can (to co-opt Grimshaw’s point) highlight the problems in the male forms of reasoning which have been seen as the norm. For instance, by paying attention to likely evolved sex differences in attitudes to violence or war, and how this might affect how the world *is*, we can focus on reasons why it is not as it *ought* to be. If war is more likely when ‘male-like’ reasoning is the social norm, and our normative beliefs oppose war, then we have a reason to promote more ‘female-like’ reasoning.

Indeed, as Pinker points out, the history of anti-war sentiment demonstrates that “women have taken the leadership in pacifist and humanitarian movements out of all proportion to their influence in other political institutions of the time”; furthermore, the recent decades in which women’s interests have been increasingly acknowledged “are also the decades in which wars between developed states became increasingly unthinkable”.⁴⁶

If Pinker is correct, then these historical trends are explicable in Darwinian terms: for example, that because men have a greater evolved incentive to compete for sexual access to females (e.g., through displays of dominance), while women have a greater incentive to minimise risks to their children (e.g., the dangers that might arise through war), any increase in female influence on society could be expected to lead to a decrease in the level of violence.

Science writer Matt Ridley reaches a similar conclusion about the role of women in the socially competitive environment of politics or business. Echoing

Baumeister's argument that men and women are likely to differ more in motivation than general ability, Ridley suggests that women have little incentive to compete for political power because, unlike men, this would not further enhance their reproductive success. Importantly, however, while "evolutionary thinking predicts that women will not often seek to climb political ladders ... *it says nothing about how good they will be if they do*".⁴⁷

According to Ridley, the available evidence about women's success as political leaders (e.g., as Queens or as Prime Ministers) suggests that they do a slightly better job than men, and that this is perhaps due to certain features of female psychology, such as greater intuition and character judgement, or lack of self-worship. To Ridley, moreover, this could justify affirmative action to place more women in positions of power: "Since the bane of all organisations, whether they are companies, charities or governments, is that they reward cunning ambition rather than ability (the people who are good at getting to the top are not necessarily the people who are best at doing the job), and since men are more endowed with such ambition than women, it is absolutely right that promotion should be biased in favour of women."⁴⁸

To relate this more closely to Singer's Darwinian left argument: the facts of our nature (or of differences in male and female nature) do not determine our values. We are no more justified in using the (possible) fact that violence/competition is a more male-like tendency as the basis for our political policies than we are in using the (possible) fact that reduced aggression/competitiveness is a more female-like tendency. However, if our political goal is for a less aggressive or less competitive society then we can use these facts in pursuit of this goal (e.g., by further empowering women).

Similarly, broad psychological sex differences as regards family and work commitments do not in themselves justify particular social arrangements; men can make good caregivers just as much as women can make good wage slaves. Yet, if we deem current gender roles to be undesirable, then an understanding of the sex differences that lead to this inequality could help us work out the best ways of bringing about a more desirable state of affairs.

At the same time, there is an obvious danger to ill-considered reasoning about male and female cognitive differences: as Grimshaw emphasises, the view that women 'reason differently' (or, in Darwinian terms, that they may have different psychological inclinations) "runs the risk of recapitulating old and oppressive dichotomies".⁴⁹ For example:

Women themselves have constantly tended to be devalued or inferiorized (frequently at the same time as being idealized). But this devaluation has not simply been of women themselves – their nature, abilities and characteristics. The 'spheres' of activities with which they have particularly been associated have also been devalued. ... Thus home, family, the domestic virtues, and women's role in the physical and emotional care of others ... are commonly seen as a mere 'backdrop' to the more 'important' spheres of male activity, to which no self-respecting man could allow himself to be restricted; and as generating values which must always take second place if they conflict with values or priorities from elsewhere.⁵⁰

In the case of Larry Arnhart's conservative belief that Darwinism sanctions a 'natural' role for men and women (i.e., the traditional view of 'men at work, women at home'), the leftist fear that Darwinian reasoning is simply an attempt to further

devalue women and women's behaviour does not appear unfounded. Nevertheless, Arnhart's argument fallaciously transgresses the fact/value distinction, and the real point is that accepting differences in men's and women's nature, abilities and characteristics, or in their predispositions towards certain activities, need not bring with it value (or 'devalue') judgements – *difference*, as Grimshaw makes clear, does not imply *deficiency*.

From a Darwinian perspective, there are obvious reasons why women's psychological predispositions may be more attuned to home, family or care-giving than men's, and why men's evolved psychology may be more focused on (competitive) work environments. This being the case, one important question is whether a Darwinian perspective on this issue could help overcome (rather than reinforce) the tendency to disregard women's spheres of activity.

For example, as Lawrence Summers argues, the demands of *employers* rather than the *employment* itself is perhaps the biggest factor in under-representation of women in certain roles: one solution, therefore, is to change working conditions so that women may be more willing to enter those professions currently dominated by men. Here, an evolutionary perspective may inform us about the sort of working conditions that may be more conducive, on average, to women, and of what other possible aspects of male and female psychology may need to be taken into account to bring about desired egalitarian outcomes.

If men and women do, in general, have differing inclinations and tendencies, and if women are therefore more likely to opt for occupations that earn less money, then they risk being unfairly penalised (e.g., wage-wise) for attempting to satisfy their job preferences. If this is indeed the case, then we have additional grounds to demand more equitable pay levels, or to argue that market force wage competition may not be appropriate to certain occupations, such as the 'caring' roles traditionally filled by women. Thus, even if our argument is informed by Darwinian thinking, raising the pay and status of women (and of women's roles) can still remain the political goal.

At the same time, however, *if* broad sex differences do exist but we ignore them and attempt to channel people into jobs that they would not otherwise tend to choose, then we risk encouraging people into roles where they may be unhappy or unfulfilled. Of course, to those sceptical of Darwinian reasoning, this last point might appear on a slippery slope to the argument that certain roles are 'natural' and therefore inevitable for women – that women will, on average, always be the nurses and never the doctors. This is not what I am suggesting. Rather, I am arguing that accepting the possibility of evolved sex differences may help illuminate why men and women tend to prefer particular jobs, or why we might unconsciously assign greater importance to some roles than to others.

It could be the case that women, in general, tend towards the caring professions because of their evolved psychology; if so, this does not mean we cannot, if we so desire, raise the wages and status of such jobs. At the same time, women may be deterred from certain professions by factors extraneous to the actual job itself, such as family-unfriendly hours or lack of childcare; yet, here again, there are social and legislative changes that can be effected to make such professions more accessible for women.

Similarly, paying attention to possible evolved differences between the sexes could help reveal certain biases in our perceptions of the social world. For example, the discipline of animal behaviour was revolutionised by the input of increasing numbers of women (such as Sarah Hrdy) who drew attention to socially-significant female behaviours – behaviours, moreover, that had hitherto been overlooked by male

observers. Perhaps the same is true of how we normally look upon human behaviour: that highly visible male activities (especially aggressive competition) draws our attention away from socially-significant female behaviours, and that this causes us to ‘inferiorize’ the latter.⁵¹

Of course, those most likely to analyse female behaviour in human societies, such as academic social scientists, are also those least likely to accommodate evolutionary theory in their analysis. This attitude is unfortunate because Darwinian reasoning can, in fact, further illuminate the old and oppressive dichotomies that have always devalued women and women’s roles. Far from justifying the persistent belief that women’s roles form a mere backdrop to more important male activities, Darwinian reasoning can help foreground the former instead of the latter.

As concrete example of the potential value of a Darwinian perspective on old arguments about sex and politics, and to draw the various strands of my argument together, I will here turn to that most controversial social issue – the debate around abortion and women’s reproductive rights.

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In Sarah Hrdy’s opinion, the abortion debate “is ultimately about what it means to be a mother”.⁵² Surprisingly, despite childbirth and motherhood being an obvious sphere of *women’s* activity, arguments about reproduction and abortion are dominated by *men*. Or is this surprising? In commenting on one especially heated debate about abortion in the US Congress, and on the emotional fervour of one anti-abortion male senator in particular, Hrdy comments: “Like all humans, and indeed as is typical of the entire Primate order, the senator exhibited an intense, even obsessive, interest in the reproductive condition of other group members. Like all high-status primates before him, he was intent on controlling when, where, and how females belonging to his group reproduced.”⁵³

Further, after highlighting the significant fact that Congress never argues about intervening in the bodily functions of men, Hrdy goes on to claim: “Passionate debates about abortion derive from motivations to control female reproduction that are far older than any particular system of government, older than patriarchy, older even than recorded history. Male fascination with the reproductive affairs of female group members predates our species.”⁵⁴

With regard to the value of ETOHN to political arguments for sex equality, therefore, the abortion issue illustrates an extreme example of the evolved male desire to control women – and this, in turn, could provide an extra dimension to standard gender feminist ideas about patriarchal society; that is, that the cultural processes (e.g., patriarchy) that result in the oppression of women are themselves based on pre-human psychological predispositions. Could we therefore use this sort of evolutionary insight as an additional means to challenge or combat male social hegemony?

Hrdy herself points to the dangers in *ignoring* the deep psychological basis of the male desire to control females. Young women in developed countries, Hrdy suggests, naively take for granted the freedoms that they currently enjoy (freedoms that are, in fact, historically unique):

They view the antiabortion movement in the United States, along with the emergence of powerful political lobbies seeking to substitute ‘abstinence only’ for practical knowledge about human sexuality and reproduction, as too irrational to take seriously. ... They see no connection between innate male

desires to control women in earlier times and the attitudes toward women and family that inspire all-male audiences of ‘Promise Keepers,’ or that motivate elected officials to debate endlessly over whether and when a woman gives birth.⁵⁵

In Hrdy’s view, few in the West could take seriously the possibility that that “old tensions between maternal and paternal interests” could re-emerge, and even reverse the more recent revolution in the treatment of women. She herself is less sanguine: “If age-old pressures are allowed to erode hard-won laws and protections, it is far from certain that the unique experiment we have embarked upon can persist.”⁵⁶

Surely, therefore, an evolutionary-informed understanding of the male desire to control women is highly relevant to egalitarian aspirations for a more sexually equal society (irrespective of where one stands on a particular emotive issue such as abortion). Such an understanding is *not* antithetical to the desire to end female oppression: indeed, the on-going rejection of ETOHN by many feminists – in this case, for example, ignoring evidence that patriarchal behaviour has deep evolutionary roots – could itself pose a threat to our hopes for further gender equality, especially if it causes us to misunderstand or to underestimate the motivations of those who want to turn back the clock and put women back in what they perceive is their ‘natural’ place.

Furthermore, this evolutionary perspective on specific aspects of male and female behaviour appears entirely consistent with the wider egalitarian argument articulated by the likes of Grimshaw – for example, that taking the experiences and perspectives of women seriously could provide a basis to critique the current male-dominated public sphere. Grimshaw points out that human social life would be very different if women had the same sort of political power that men enjoy, or if men had the same sort of responsibility for children as women have. She goes on to suggest, “there is every reason, too, to suppose that in a world in which the activities and concerns of women which have traditionally been regarded as primarily female were given equal value and status, moral and social priorities would be very different from those of the world in which we now live.”⁵⁷

The role of women in bringing about a decrease in violence in developed societies appears to support Grimshaw’s argument; in this case, the evidence suggests that more equal consideration of women’s concerns and activities does indeed lead to a change in moral and social priorities. And while the recent transformation in attitudes to women’s rights has not been informed by ETOHN, a Darwinian perspective is not – or not necessarily – incompatible with further egalitarian reform. Darwinian thinking, therefore, can potentially provide a deliberate and scientifically credible source of critique of the male-dominated social world. Indeed, as the preceding discussion of women’s reproductive rights illustrates, failure to take seriously the possible evolved basis of certain male ‘concerns’ may undermine the hard won egalitarian reforms already achieved.

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A Darwinian perspective on our social behaviour can provide insights into *why* we might have the preferences that we do, or *why* we are so readily socialized to behave in particular ways, or *why* society has come to be organized in the manner that it is. The greater tolerance of long working hours by males, for example, may be a reflection of behaviour that, in the past, better ensured male reproductive prospects

(e.g., in provisioning female partners and offspring with resources). And as human societies grew larger and more complex, this pattern of behaviour may have provided the initial impetus for the gender dichotomy that we see today – of men working longer hours (and getting more pay) than women.

Yet while any such evolutionary account could simply provide an *explanation* for observed behaviour, from the point of view of a Darwinian left it could also provide a means to critique that behaviour – for example, to ask whether, in a modern society, this is a desirable way to behave. Furthermore, as argued at length above, an evolutionary understanding of our behaviour can also inform us about possible ways to change it (and its social outcomes) if that is what we desire. As philosopher Griet Vandermassen argues in respect of likely evolved differences between men and women: “If we are not prepared to look reality in the face, we will be unable to respond to it adequately.”⁵⁸

The question addressed in the next three chapters is whether a similar perspective can also be applied to the possibility of evolved genetic differences between human *racial* populations.

It is true that the only certain race is the human race. Perhaps, however, the time has come to explore how biological variation and social construction are related. Dealing with difference may be easier said than done. But denial no longer appears to be an option.

Marek Kohn, *The Race Gallery*

Chapter 9: Of Definitions and Diversity

In 1840, under the terms of the Treaty of Waitangi, the Maori people of Aotearoa/New Zealand formally acquired the rights of British subjects. That same year, historian Thomas Macaulay depicted a possible future for the Empire that Maori had signed up to, famously envisaging a time “when some traveller from New Zealand shall, in the midst of a vast solitude, take his stand on a broken arch of London Bridge to sketch the ruins of St. Paul’s.”¹ This vision of native New Zealanders risen above the declining British could hardly have contrasted more with that of Charles Darwin, who, only a few decades later, forecast eventual extinction for Maori in the struggle for existence with Europeans: “The [Maori] New Zealander seems conscious of this ... for he compares his future fate with that of the native rat now almost exterminated by the European rat.”²

While history has proved Darwin’s gloomy prediction false, it is nevertheless the case that the life outcomes of many modern Maori in New Zealand, like those of most indigenes elsewhere, are much poorer than those of more recently arrived peoples. And indigenous peoples are not alone in suffering from the vicissitudes of history; other peoples who had fallen, or were soon to fall, under colonial rule in Darwin’s day still lag far behind their former European overseers in prosperity and power, despite subsequently regaining independence.

As biogeographer Jared Diamond acknowledges: “It is perfectly obvious to everyone, whether an overt racist or not, that different peoples have fared differently in history.”³ But why is this the case? Why has the course of human history been so very different for different peoples? In his Pulitzer Prize winning *Guns, Germs and Steel*, Diamond attempts to answer these questions: “Why did wealth and power become distributed as they are now, rather than some other way? For instance, why weren’t Native Americans, Africans, and Aboriginal Australians the ones who decimated, subjugated, or exterminated Europeans and Asians?”⁴ (Or, contra Macaulay, why were the British able to visit ruin upon the Maori rather than the other way round?)

The most common explanation for a world divided between haves and have-nots, according to Diamond, “involves implicitly or explicitly assuming biological differences among peoples”.⁵ And while such views (most especially the idea of cognitive differences between races) are repudiated in public in Western countries today, biological explanations for inter-group inequalities are still widely held in private.⁶

Yet, despite it being impolite to say so in public (at least in the West), Diamond accepts that “[i]t *seems* logical to suppose that history’s pattern reflects innate differences among the people themselves”:

We see in our daily lives that some of the conquered peoples continue to form an underclass, centuries after the conquests or slave imports took place. We’re told that this too is to be attributed not to any biological shortcomings but to social disadvantages and limited opportunities. Nevertheless, we have to wonder. We keep seeing all those glaring, persistent differences in peoples’

status. We're assured that the seemingly transparent biological explanation for the world's inequalities ... is wrong, but we're not told what the correct explanation is.⁷

In Diamond's opinion, unless there is "some convincing, detailed, agreed-upon explanation for the broad pattern of history, most people will continue to suspect the *racist* biological explanation is correct after all".⁸

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Although Diamond is careful not to couch it in these terms, his discussion of the glaring social disparities between different peoples equates to *racial* inequalities. And the question of 'race' is the elephant in the room for Peter Singer's Darwinian approach to social inequality.

If the left is to take seriously Singer's claim that "we bear the evidence of our [evolutionary] inheritance, not only in our anatomy and our DNA, but in our behaviour too"⁹, it must also entertain the *possibility* of evolved differences between human populations. After all, some divergent evolution between long-separated human lineages appears to follow directly from Darwin's basic concept of 'descent with modification'.

Indeed, for the likes of sociobiologist E.O. Wilson, this is more than just a possibility: "Given that humankind is a biological species, it should come as no shock to find that populations are to some extent genetically diverse in the physical *and* mental properties underlying social behaviour."¹⁰

Yet for many liberal thinkers, the very idea of evolved differences between peoples is potentially (if not actually) racist. As Diamond argues, for instance, it simply lends credence to the belief that obvious inequalities between different peoples (or races) are explicable in biological terms; that disparities in wealth or well-being, say, are a consequence of biological differences between peoples themselves. This liberal attitude is not surprising: after all, the most appalling application of biological thinking to human societies was the racial ideology of Hitler's National Socialists.

Moreover, reference to human biology in analysis of inter-group inequality may appear to blame the victims rather than the perpetrators of colonial subjugation and post-colonial marginalization. Again, this attitude is not without good cause. Ill-considered theorizing about 'deep' differences between groups identified on the basis of 'race' may indeed cause genuine social harm, particularly if it promotes the political belief that little can be done to change or to ameliorate glaring and persistent inequalities. As philosopher Philip Kitcher rightly points out: "Throughout history, allegations of deep differences in temperament and capacity [between races] ... have done incalculable harm."¹¹ The possibility of there being meaningful differences between racial populations, beyond superficial features such as skin colour, is therefore strongly resisted by many egalitarian social theorists.

Singer himself largely side-steps this incendiary subject, beyond briefly noting the human tendency towards in-group/out-group violence and the relative ease with which racial hatred can be stoked. Nevertheless, some of Singer's analysis of apparent biological differences between men and women can readily (and worryingly) be applied to possible evolved differences between racial groups.

For example, because Darwinian thinking, according to Singer, tells us "that we are too ready to assume that all human beings are the same in all important respects",¹² we may be wrong to "[a]ssume that all inequalities are due to

discrimination, prejudice, [or] oppression”.¹³ In Singer’s view, certain gender inequalities, such as the obvious dearth of women in positions of authority, could ultimately be due to biological differences between the sexes. The relevant point here, though, is that women are not the only group under-represented in high status roles; so too are many racial or ethnic minorities. (Similarly, many racial or ethnic minorities are *over*-represented in low status roles, or at the wrong end of social statistics for crime, health, education and the like.) Could Singer’s Darwinian thinking, therefore, lead to the analogous conclusion that this too is the result, not simply of discrimination, but of *biological* differences between members of different races?

This chapter examines this deepest, and most controversial, level of worst case scenarios for the left: the possibility that divergent human evolution may be a factor in modern ‘racial’ inequality. And because this is such an explosive topic, I will immediately lay out my position. From a Darwinian perspective, human populations *may* differ to a greater extent than most egalitarians might hope. My position is not that there necessarily *are* substantive racial differences, but that we cannot simply deny this possibility because it conflicts with our political beliefs or hopes. Even if it turns out that racial populations do differ more than commonly assumed, this does not impact on our egalitarian ideals: the desire for equality does not depend on all people being the same in all important respects.

Due to the controversial nature of this topic, however, I will develop my argument over three chapters. This chapter will address many of the background issues to an evolutionary view of racial diversity – for example, how terms such as ‘race’ or ‘racism’ are defined, and how the biological aspects of race are treated in academic contexts. One problem I identify in this chapter is how the term ‘race’ is defined and used. Many widely held conceptions of race are premised on a belief in the superficiality of racial difference. I examine two such conceptions – that race is solely a social construct and that race is simply ‘skin deep’ – and suggest that both fail to adequately account for possible divergent human evolution.

Next, I examine various evolutionary arguments about race; those that defend the ‘skin deep’ position on racial diversity and those that, by contrast, imply that more substantive racial differences may have arisen over the course of human evolution.

I further argue that the reluctance to accept the possibility of biological aspects of race is, in large part, ideologically motivated – part of a well-intentioned attempt to curtail possible racist misinterpretations of human diversity. I end the chapter by suggesting that the left’s present taboo on discussing this topic is counter-productive, and that egalitarians may effect more beneficial social change for marginalized groups through an open and honest approach to human evolution. In the next two chapters I then apply a Darwinian left perspective more closely to the question of racial inequality. My ultimate aim is to assess if and how such a perspective might be politically and socially beneficial.

To ground this chapter’s discussion in the real world, and to provide a case study relevant to later discussion, I will begin with an example of different peoples who have fared differently over the course of history, those with which this chapter began – Maori and non-Maori in New Zealand. In focusing on the health disparities between these different ‘racial’ groups, I will argue that confusion and uncertainty about possible biological/genetic aspects of group membership is detrimental to egalitarian attempts to improve people’s lives.

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The most obvious social inequality in New Zealand is that between Maori and non-Maori. Mortality statistics provide grim and unequivocal witness to this fact: the average life expectancy of Maori, for instance, is nearly a decade less than that of non-Maori, while, in relative terms, the overall Maori mortality rate is twice that of the non-Maori population.¹⁴

To get an idea of the extent of health disparities between different groups in New Zealand, consider the following from the chapter on ‘Mortality’ in *Hauora: Maori Standards of Health IV*:

Cardiovascular disease death rates were 2.3 times higher for Maori than non-Maori during 2000-2004. Cancer mortality rates were 77% higher and accidental deaths 94% more common. Deaths due to respiratory disease were 2.6 times more frequent among Maori. The type 2 diabetes mortality rate was seven times the non-Maori rate. The age-sex-standardised rate of suicide was 49% higher among Maori.¹⁵

As can be seen in these appalling statistics, there is a vital need to identify and understand Maori health issues.¹⁶ In addition to the medical data, therefore, *Hauora* also examines the social, economic, environmental and political factors that influence health outcomes: income, employment, housing, education, social exclusion, and the deleterious effects of racial discrimination. These factors, moreover, are inter-related and often self-reinforcing: for example, institutionalised racism leading to poorer health provision and thus to poorer health, which then leads to reduced income and employment prospects, which exacerbates health problems, and so on. By tackling health disparities, therefore, many of the other negative social indicators are also likely to improve.

Maori and non-Maori in New Zealand are obvious examples of Jared Diamond’s point that different *peoples* have fared differently over the course of history. But what exactly is meant by the term ‘people’ or ‘peoples’ – as, for example, when members of New Zealand’s Maori Party talk about ‘our people’? And how do ‘peoples’ differ from folk concepts of ‘races’? On this particular issue – *Hauora*’s use and definition of the term *race* – there appears to be considerable confusion. Given that this is a publication specifically focusing on an identifiable racial population, it is therefore important to examine how this term is used.

According to *Hauora*’s subsection on ‘Colonisation and health inequalities’, for instance, the concept of ‘race’ was central to colonial New Zealand’s “racist ideology” of white superiority, in which different peoples were placed in a simplistic biological hierarchy from less advanced to more advanced races – intellectually, socially, culturally and spiritually.

This idea of a hierarchy of different ‘races’ has long been discredited, yet the term ‘race’ still has popular usage even today, with expressions like ‘raced-based funding’. This return to discredited terminology suggests the foundations of white superiority are still alive and well in our country today.¹⁷

Interestingly, this ‘discredited terminology’ is openly used by Maori health advocate Gwen Tepania-Palmer in *Hauora*’s own foreword: “There is no question that we [Maori] ... are still confronting obstacles. Tobacco, alcohol and other drugs continue to impede the full development potential of *our race*.”¹⁸ Here, ‘race’ is used,

not as a sop to white superiority, but simply as a referent for the ‘group’, ‘population’ or ‘people’ identified as Maori. While this indicates that the term does not *necessarily* carry racist overtones, it is nevertheless often avoided because of its past associations with racist beliefs. Indeed, aside from its foreword, *Hauora* itself adopts expressions such as ‘ethnicity’ or ‘ethnic inequalities’ as alternatives to ‘race’ or ‘racial inequality’.

As a biological concept (akin to ‘variety’ or ‘sub-species’), ‘race’ is no longer deemed appropriate when discussing human social groups, and synonyms such as ‘people’, ‘population’ or ‘(ethnic) group’ are therefore often used as a means to avoid any biological associations. At the same time, when race *is* deliberately used in contemporary discussion (for example, in reference to racism or racial discrimination), the term most often refers, not to human biology, but to the socio-cultural determinants of group membership. For example, in discussing racial discrimination, *Hauora* notes “‘Race’ is not used as a biological construct reflecting innate differences but [as] a social construct that captures the impact of racism.”¹⁹

In academia especially, a social constructivist perspective on race (that concepts of race, including racist beliefs, arise from prevailing social attitudes rather than from ‘biological’ differences between peoples) is widely held.²⁰ If this is applied to a real world case, however, such as the health disparities affecting Maori, the result is inconsistency and confusion.

‘Being Maori’, for example, is not just a social construct: ancestry is an integral part of Maori identity – the very idea of Maori as tangata whenua (‘People of the Land’) is premised on cultural and spiritual heritage *and* ancestral descent. In the case of Maori, therefore, as with other indigenous peoples, terminological equivocation (‘race’ versus ‘people’ or ‘ethnic group’, say), or the notion of race as solely a social construct, obscures the fact that group membership is also based on genealogy (and thus, that it has a ‘biological’ component). At the same time, biological/genetic factors, in addition to social issues such as poverty or discrimination, are themselves implicated in the obvious health disparities between different racial groups.²¹

For example, consider Tepania-Palmer’s claim above that tobacco, alcohol and other drugs continue to impede the full potential of Maori (or of the Maori ‘race’). A seemingly straightforward question here is whether there may be a genetic basis to the apparent difference in addictive behaviour between Maori and non-Maori, in addition to socio-cultural influences on tobacco, alcohol and drug use: that is, could a better understanding of the genetic aspects of addiction, and of how this impacts on Maori in particular, assist in addressing the wider health and social problems that this addiction causes?

Thus, while social factors undoubtedly play a major role in health inequalities, we cannot simply ignore the possible role of genes in the disparate outcomes for different racial groups. This may seem an obvious point to make. Unfortunately, because of the confusion and uncertainty about exactly what is meant by ‘race’ (or by its more politically palatable synonyms), it is far from straightforward how we may best accommodate social *and* biological perspectives on group differences, especially given the appalling political history of the latter.

Hauora’s discussion of Maori health disparities, therefore, illustrates the real world relevance of these issues. But before assessing the political implications of *possible* evolved differences between human populations or ‘races’, I need to be clear about how the term ‘race’ is used or defined in wider social science discourse. I have already touched upon the social constructivist analysis of race and indicated how this

fails to adequately account for the genealogical aspects of indigenous peoples' identity (as well as for the obvious physical differences between racial populations in general).

In the next section, therefore, I examine a more nuanced and detailed definition of race, one that exemplifies a standard social science belief that race is only 'skin deep' (in the analysis below, this is referred to as the 'ordinary concept of race'). I will argue that, while this definition can usefully be applied to many widely held social beliefs about race, including racist behaviour, it fails to adequately accommodate evolutionary perspectives on the issue.

I then turn to a number of arguments about the 'biological reality' of race, and indicate some of the deficiencies in accounts that, like the 'skin deep' or ordinary concept, emphasise the superficiality of biological differences between peoples. My aim is to demonstrate that, while the possibility of substantive racial differences may be unpalatable to many egalitarians, an evolutionary perspective on this issue cannot simply be dismissed or defined away.

Importantly, and to reiterate a point made earlier, I do not here endorse a substantive account of evolved racial differences. Rather, I indicate that this is an open question. My point is, however, that by refusing to accept this possibility (and by defending the 'skin deep' position with inadequate or implausible arguments) egalitarians undermine their own credibility.

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According to philosopher Michael Hardimon, the 'ordinary concept of race' has a logical core consisting of three basic theses – that of a group of human beings whose members (1) "are distinguished from other groups of human beings by visible physical features of the relevant kind" (i.e., differences in skin colour or body shape); (2) "are linked by common ancestry"; and, (3) "originate from a distinctive geographic position". As represented by this logical core, therefore, "race is a matter of skin color, shape, ancestry, and aboriginal habitat – *and nothing more*".²² This then is the view of race as little more than 'skin deep'.

Hardimon argues that any such ordinary concept of race (which captures a real, though superficial, feature of empirical reality) provides an indispensable tool in the struggle against racism. That is, without a concept of race, we cannot analyse, and therefore address, racial discrimination. He emphasises this point to counter the *eliminativist* philosophical argument "that the concept of race ought to be 'eliminated' (withdrawn from use in theory and talk) on the grounds that it provides justification and support for racism".²³

In Hardimon's view, racism does not arise directly from the ordinary concept of race, but rather from the 'racialist development' of this concept – that is, from additional suppositions, such as the belief that the physical features of a racial group correlate with particular behavioural or cognitive traits, or that members of a particular race share 'essential' characteristics peculiar to that group alone. For example, the racialist development (or 'racialism') leads to the view that "[t]o be of a particular race is to have a particular set of moral, intellectual, and cultural aptitudes and tendencies. The racialist conception represents the visible physical features of race as reliable markers of important human differences".²⁴

Hardimon argues that, by keeping the logical core of the ordinary concept of race distinct from the racialist development, we can perhaps retain the concept of race without sustaining racist thinking. Nevertheless, Hardimon also cautions that "it is

unrealistic to suppose that the word ‘race’ can ever be wholly liberated from its racist overtones and connotations”.²⁵

This point is well taken. The hesitancy or reluctance to use the ‘discredited terminology’ of race evidenced by the likes of Diamond or by the contributors to *Hauora* is not without good cause. The very notion of race, as Hardimon earlier makes clear, means that “racism *does* have a toehold in reality. Human beings *do* differ in shape and color in ways that that are connected to ancestry and aboriginal habitat”.²⁶ At the same time, however, without such a concept, it becomes difficult to even discuss racism and thereby effectively tackle it.²⁷

In relation to the earlier discussion of health disparities, therefore, Hardimon’s definition of the ordinary concept of race can usefully be applied to the social aspects of inter-group (or *racial*) inequality. For example, in analysing the inequality that arises from social factors – poverty, unemployment, lack of health provision, social exclusion, and so on – the ordinary concept of race can be used to ask why it is that distinct groups of people who differ in *nothing but* physical appearance, ancestry and origin can end up better or worse off relative to each other.²⁸

Moreover, Hardimon’s core definition of race reflects an apparent ‘consensus opinion’ amongst anthropologists and social theorists that, beyond noticeable physical characteristics, races are not biologically real.²⁹ According to philosopher Ian Hacking, for example: “Superficial differences in races do exist in nature, and these are readily recognised. ... Sensible naturalists stop there. The belief that racial differences are anything more than superficial is a repugnant error.”³⁰ In a similar vein, Philip Kitcher notes:

There are simple and powerful arguments against the biological reality of race. Although the phenotypic characteristics, the manifest features that have been traditionally been used to divide our species into races, are salient for us, they are superficial, indicating nothing about important differences in psychological traits or genetic conditions that constitute some racial essence.³¹

And herein lies the problem if we apply a Darwinian perspective to the idea that human groups differ from each other *merely* in physical appearance, ancestry and aboriginal origin. That is, if the salient phenotypic characteristics of ‘race’ are themselves the result of biological evolution – as, for example, Hardimon suggests in claiming that “[a] racial group’s visible physical features are the product of its ancestors’ adaptation to the climate of its aboriginal habitat”³² – how has further evolutionary genetic divergence between groups (i.e., biological differences that are not merely ‘skin deep’) been *prevented* over the course of evolutionary time?

In other words, there is a *prima facie* case for a more substantive view of evolved racial differences. For example, it is at least plausible that the different rates of disease among different human groups is to some extent based on deeper genetic differences – genetic differences that are themselves the result of divergent biological adaptation to different ancestral environments. (A textbook case is that of malarial resistance and sickle cell anaemia in certain West African populations.)

Furthermore, it also appears plausible that non-adaptive or stochastic biological changes, such as genetic drift (in which particular genetic combinations may disappear from or become fixed within a population by chance) or founder effects (the loss of genetic variation that occurs when a population is ‘founded’ by a small number of individuals), could readily have occurred in some populations but not others during the course of human dispersal across the globe. It would therefore be

odd – i.e., in need of explanation – if these processes, which are well-documented in other widely dispersed species, did not occur within our particular species.³³

Human beings, moreover, are also able to consciously select ‘desirable’ traits in their sexual partners. As science journalist Nicholas Wade notes: “sexual selection, the partly capricious taste of men and women for partners of a certain type, as well as competition between men, may have been a strong selective force, and one that acted somewhat independently in each human population”.³⁴ Thus, different physical *and* behavioural or cognitive characteristics and abilities may have been preferred in different human populations, potentially leading to further physical *and* psychological divergence between populations – especially as sexual selection provides a strong feedback mechanism that can bring about relatively rapid change.³⁵ Sexual selection, natural selection and genetic drift are all mechanisms that could have propelled different human lineages on different biological trajectories.

The type of detailed philosophical definition provided by the likes of Hardimon, therefore, fails to adequately explain why ‘biological’ processes have resulted in different physical characteristics *but nothing else*. In short: while it is perhaps repugnant (or at least deeply worrying to egalitarians) to believe that racial differences are anything more than superficial, a scientifically credible explanation is needed to explain why deeper biological divergence between human populations has not occurred.

How, then, do social theorists such as Hardimon (or Kitcher or Hacking) explain away the possibility that racial differences might be more than skin deep, or the idea that human races might be biologically ‘real’? As will become apparent in the next section, many of those theorists wishing to deny the possibility of deeper biological differences between races present this in terms of *essentialist* beliefs. This, though, is a straw man argument: modern biological perspectives on racial diversity do not imply the existence of *essential* differences between peoples. Furthermore, many of the beliefs about the implications of substantive racial differences appear exaggerated. I argue that maintaining these implausible concepts of race is itself detrimental to the cause of greater racial equality.

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As an example of an essentialist concept of race, consider the Concise Oxford Dictionary’s definition of *racism*:

the belief that all members of each race possess characteristics or abilities specific to that race, esp. so as to distinguish it as inferior or superior to another race or races; prejudice, discrimination, or antagonism directed against someone of a different race based on such a belief.

Here, racism is premised on a view of race in which particular characteristics are taken to be *specific* or *essential* to that race. Philip Kitcher, above, similarly alludes to an essentialist concept of race when he refers to “psychological traits or genetic conditions that constitute some racial *essence*”.

In the same way, the racialist development of the ordinary concept of race, according to Hardimon, is also based on this sort of *essentialist* belief. Thus, in distinguishing between the ordinary concept of race (which is non-essential) and its essentialist racialist development, Hardimon argues:

[The ordinary concept's] logical core does not hold that human beings are divided 'by nature' into a hierarchy of races. Nor does it hold that each race is characterised by a fixed set of fundamental, 'heritable', moral, intellectual, and cultural characteristics common and peculiar to it. Nor again does it hold that each race has an essence that explains why it has the visible physical features that it does, or why the two are correlated. It does not hold that each member of a race necessarily shares the 'essential' characteristics of his or her race. It does not – and this point should be underscored – require *any* intrinsic connection between skin color and humanly important traits such as intelligence or moral character.³⁶

It is important to emphasise the distinction that Hardimon draws here. On the one hand, there is the non-essential view of race as colour, shape, ancestry and aboriginal origin, and nothing else. On the other hand, there is the *essentialist* racialist view of a 'natural' "hierarchy of races"; of "fixed, fundamental and heritable" characteristics, that are "common and peculiar" to a particular race; of an essence shared by all members of that race; and, of an "intrinsic connection" between skin colour and intellectual or moral traits.

Here, Hardimon quite justifiably rejects the widely held but erroneous belief that evolutionary biology supports the notion of racial essences. As he later argues: "There is no room in modern biology (in the modern conception of species) that species have distinct essences which distinguish them from other species. A fortiori there is no room in biology for essences at the *infraspecific* level" (i.e., at the level of 'race').³⁷ Philosophers Massimo Pigliucci and Jonathan Kaplan make the same point, that modern biology does not support an essentialist conception of 'race'.³⁸

But then again, *modern* biological concepts such as species, sub-species, varieties and races are themselves non-essentialist – and as Pigliucci & Kaplan point out: "While it is valuable for biologists to note that the essentialist conception of human races has no support in biology ... they should not fall into the trap of claiming that there is no systematic variation within human populations of interest to biology."³⁹

In other words, human racial populations *could* vary meaningfully – say, at the genetic level – without such variation being a question of essences, or without implying that certain traits are "common and peculiar" to specific races and to those races alone. Hardimon therefore *is* correct that modern biology does not support an essentialist view of race; nevertheless, Hardimon (and many other theorists) *is not* correct to imply that the superficiality of race necessarily follows from a non-essentialist definition. There is not simply a mutually exclusive choice between a non-essential concept of race and an essentialist (racialist) concept. A non-essential but biologically real concept of race is also a possibility.

The 'non-essentialness' of biological concepts of race is highlighted, for instance, in Pigliucci's & Kaplan's discussion of the way that particular traits may vary gradually across a species' geographical range (or cline). Such clinal variation means that any given individual could display characteristics common to a number of different populations, and that distinguishing clear boundaries between groups is impossible. This is also the case with our globally dispersed species, *H. sapiens*. Nonetheless, despite the 'fuzzy' way in which populations merge into each other, widely separated populations (or racial groups) could still be meaningfully identified.⁴⁰ Indeed, in Pigliucci & Kaplan's view, many of the

arguments against biologically meaningful human races fail because they rely on concepts that are not actually presented by modern biological theory.⁴¹

Philosopher Neven Sesardic makes a similar point about how those wishing to deny the biological reality of race often posit an inappropriate target for their arguments. For instance, Sesardic highlights one ‘straw-man’ position often articulated by those wishing to deny biological aspects of race: the belief, supposedly held by ‘racialists’, that criminality and skin colour are *causally* linked. He quotes Philip Kitcher’s argument against this belief, in which Kitcher suggests: “young men with dark skin are not more likely to commit crime because of the darkness of the skin or because the alleles that code for proteins that increase melanin concentrations in the skin have some psychological side effect, but because they are poor, undereducated, given fewer opportunities, and so on”. According to Sesardic, Kitcher is here presenting the “wildly implausible” hypothesis that criminal behaviour is *caused by* dark skin or increased melanin concentration – a hypothesis that is therefore easy to refute. “Needless to say,” Sesardic argues, “no scholar has ever defended such a silly explanation.”⁴²

(Michael Hardimon similarly implies that racialism entails this sort of ‘wildly implausible’ belief: for instance, as quoted above, when emphasizing that his non-essentialist ordinary concept of race “does not – and this point should be underscored – require *any* intrinsic connection between skin color and humanly important traits such as intelligence or moral character”.)

Given the manner in which ‘skin deep’ concepts of race are defended by such inadequate arguments, Sesardic concludes his critical analysis of modern theories of race with the call to “abandon the mantra about the biological meaninglessness of race. Instead of wasting our time on ‘refuting’ straw-man positions dredged from a distant past or from fiction, we should deal with the strongest contemporary attempts to rehabilitate race that are scientifically respectable and genetically informed”.⁴³

Indeed, such is the inadequacy of standard arguments about the superficiality of race that Jared Diamond (one of the fiercest critics of any suggestion of ‘biological’ difference between racial groups) himself inadvertently endorses the strong possibility of evolved cognitive and behavioral differences between different peoples.

For example, in *Guns, Germs and Steel*, Diamond argues that in densely populated European societies the major cause of mortality for millennia was endemic disease; thus, selective pressure would have focused forcefully on disease resistance. At the same time, however, evolutionary pressure on cognitive abilities would have been reduced as these societies’ sedentary lifestyles and greater political centralization reduced the impact of natural environmental hazards. In other words, according to Diamond, the social and environmental conditions in post-agricultural Europe would have selected strongly for disease resistance but not for intelligence.

By contrast, in sparsely populated traditional societies elsewhere in the world, with mortality determined mainly by chronic tribal warfare, food procurement problems, accidents, and the like, selective pressure for greater intelligence would have remained constant. Overturning widespread beliefs about race and intelligence, therefore, Diamond concludes that “modern ‘Stone Age’ peoples [such as Australian Aborigines and New Guineans] are on the average probably more intelligent, not less intelligent, than industrialised peoples”.⁴⁴

Here, Diamond explicitly accepts that differences in the natural and cultural environments of different ‘racial’ groups (i.e., those of different ancestry

and aboriginal habitat) could have resulted in cognitive and behavioral differences that are *more than* skin deep. By doing so, however, Diamond merely presents a mirror image explanation for supposed racial differences in intelligence to those proffered by controversial ‘racial scientists’ such as Philippe Rushton and Richard Lynn,⁴⁵ who both argue that the uniquely harsh environmental conditions in Eurasia selected for greater intelligence in those human populations that successfully expanded into that region. In Rushton’s and Lynn’s view, this helps explain the higher recorded IQ of modern Europeans and Asians relative to other racial groups.⁴⁶ The point is, though, if Diamond’s arguments about selective pressures on intelligence deserve our consideration, why not those of Rushton or Lynn?

Why, then, is there such confusion and contradiction here? How can there be, as Philip Kitcher indicates, “a widespread consensus amongst anthropologists that races are not ‘biologically real’”⁴⁷ when such ‘reality’ seems so plausible from a Darwinian perspective? Indeed, the possibility of evolved racial differences is *so* plausible that an acclaimed scientist like Jared Diamond can inadvertently (but blatantly) contradict himself by decrying as racist any biological explanation for group differences, while at the same time endorsing such an explanation.

There appears a clear political motive for Diamond’s inconsistency. On the one hand he wishes to counter widespread but ‘loathsome’ racist explanations for obvious group differences (such as those between European and Aboriginal Australians). On the other hand, he also wants to provide a *positive* evolutionary perspective on historically oppressed peoples – for example, by arguing that Australian Aborigines are very likely more intelligent than the later arriving Europeans, whose subsequent success was based on technological not cognitive advantage.

But if Diamond’s thesis is potentially influenced by political considerations, could this also be the case elsewhere?⁴⁸ In other words, could the apparent consensus on the superficiality of race be as much politically as scientifically motivated?

This is a conclusion reached by several commentators on the race debate.⁴⁹ Anthropologist George Gill, for example, argues that those theorists who deny the existence of biological races are largely motivated by socio-political considerations rather than scientific ones:

Their motivation (a positive one) is that they have come to believe that the race concept is socially dangerous. In other words, they have convinced themselves that race promotes racism. Therefore, they have pushed the politically correct agenda that human races are not biologically real, no matter what the evidence.⁵⁰

Indeed, according to Gill, while a majority of biological anthropologists accept the reality of the race, no introductory text to physical anthropology presents this perspective as a possibility. “In a case as flagrant as this,” Gill argues, “we are not dealing with science but rather with blatant, politically motivated censorship”.⁵¹

Similarly, Pigliucci & Kaplan begin their discussion of race and human biology by noting: “It has become commonplace to claim that, insofar as ‘race’ is a biological concept, there are no human races. This claim, while widely defended, is misguided.”⁵² Pigliucci & Kaplan end their analysis by cautioning that “the

ambiguity surrounding definitions of ‘race’ and the politically charged atmosphere surrounding race in humans has hampered research into these areas, a situation from which neither biology nor social policy surely benefit”.⁵³

Philosopher Neven Sesardic is less circumspect. After noting the complaints of “many serious and responsible scientists” (such as Gill) that scientific opinions are misrepresented due to political correctness, Sesardic warns: “Given this smoke and mirror situation in the debate about such a politicized issue as race, where emotions run high and where huge dangers of a wrong step are obvious to everyone, do not take at face value what scientists merely say about these topics.”⁵⁴

Of course, even if standard arguments about the non-biological nature of race are based on a fallacious view of the alternative, this does not mean that human races *are* therefore biologically real. However, it does beg the question of why our species does not display the sort of ‘racial’ variation evident in other animal species.

How, though, can *non*-scientists (e.g., political or social theorists) proceed if this is indeed the case – that is, if we cannot be certain of the ‘scientific’ or empirical facts underpinning the debate about race? One of the avenues open for the non-scientist has already been explored: assessing whether particular arguments about race are coherent or logically consistent. In the case of Michael Hardimon or Philip Kitcher, the arguments against the biological reality of race appear flawed, based on an implausible account of what a concept of biologically real races would imply. Jared Diamond, meanwhile, maintains a blatantly contradictory stance, one that appears motivated by (the well-intentioned) political desire to counter widely held racist beliefs.

Another option open to the non-scientist is to explore ‘what follows if’ we adopt a particular position on race (e.g., what follows if we accept that races are to some extent ‘biologically real’?). Michael Hardimon, for instance, expresses a widely held view about the implications of a non-superficial concept of race when he argues that any such ‘racialism’ could provide a “rationale for racism, slavery, colonization, or genocide”.

It [‘racialism’] motivates the step from (a) representing another group as racially different to (b) taking these differences to be humanly important, to (c) regarding the other group as inferior, and (d) making it the object of hatred and contempt, to (e) imposing upon it involuntary servitude or (f) colonial rule, or (g) attempting the liquidation of all its members – a sequence of steps historically all too familiar.”⁵⁵

Other theorists express similar opinions about what follows *if* racial differences turn out to be more than skin deep. Sociologist Ullica Segerstale, for example, records how one of the prominent early critics of E.O. Wilson’s socio-biology, physicist Bob Lange, responded when asked what he would do if incontrovertible facts about racial differences really were to emerge. According to Segerstale, “Lange ... quite spontaneously answered my question as follows: ‘Then I would evidently have to become a racist, because I would have to believe in the facts!’ But he went on to cheerfully add that, so far, there were no such facts!”⁵⁶

Yet is this indeed the case? Does racialism – or the belief that race may be *something more* than skin colour, shape, ancestry and aboriginal habitat – really

motivate the steps leading to racism and, ultimately, to genocide? And would incontrovertible evidence of racial difference really mean that we would inevitably become racists? An initial counter-question, one based on the fact/value distinction, would be: why should it? That is, as with the other aspects of human biological evolution addressed in this thesis, a Darwinian perspective on human populations can only provide factual information – in this case, for example, about the likely existence of evolved variation between groups. It tells us what the world *is* like, not how the world *should* be.

Any facts about possible differences between human groups do not in themselves entail value judgments; in particular, the possibility of evolved differences does not directly motivate affective racist responses, such as antagonism or discrimination. Subjective racist beliefs do not arise from objective facts about human races; indeed, they are based on erroneous beliefs about essential and unchangeable differences between racial groups – beliefs that are themselves denied by modern biology.

The apparent ideological motivation for dismissing biological aspects of race, while well-intentioned, is potentially counterproductive: for instance, if our anti-racist beliefs are tied to empirical claims about the nature of human biology, and these empirical claims are open to question, this could play into the hands of racist ideologues. Efforts to combat racism should not be determined by the facts of human biology, whatever they turn out to be.

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Having criticized various *philosophical* arguments that reject the possibility of non-superficial racial differences, I now turn to modern *evolutionary* defences of the ‘consensus opinion’ that race is only skin deep. I argue that such biological views, like their philosophical counterparts, are open to question.

Many modern ETOHN appear to implicitly or explicitly accept the widely held social science view that racial differences are superficial.⁵⁷ For instance, Chris Stringer, one of the original proponents of the prevailing ‘Out of Africa’ theory of human origins, argues that racial differences are trivial, and that the timescale since our species’ exodus from Africa “is so brief that only slight differences, if any, in intellect and innate behaviour are likely to have evolved between modern human populations”.⁵⁸

This claim – that modern humans have not had enough ‘evolutionary time’ to diverge markedly from our common ancestral stock – is one of three common theoretical justifications for disregarding the biological significance of race. Another, first pointed out by biologist Richard Lewontin in the early 1970s, is that there is greater genetic diversity between individual members of the same race than between individual members of different races, and that the idea of genetically distinct races is thus meaningless.⁵⁹ Similarly, as popular evolutionary writer Matt Ridley argues, “genetic differences between the average members of different races are actually tiny and mostly confined to a few genes that affect skin colour, physiognomy and physique”.⁶⁰

The third claim, advanced by evolutionary psychologists such as Leda Cosmides and John Tooby, is that because all human groups, despite differences in physical environment, have faced similar cognitive challenges throughout the vast majority of our species’ existence (e.g., selecting mates, acquiring status, forming coalitions and the like), significant psychological differences between

racess are unlikely to have arisen.⁶¹ Evolutionary psychology, therefore, assumes the ‘psychic unity of humankind’.

Thus, despite widespread disagreement elsewhere (e.g., over the applicability of evolutionary reasoning to human psychology, or about evolved differences between the sexes), many evolutionists share the opinion expressed by paleontologist Stephen Jay Gould: “There’s been no biological change in humans in 40,000 or 50,000 years. Everything we call culture and civilization we’ve built with the same body and brain.”⁶² Jared Diamond’s acclaimed *Guns, Germs and Steel* thesis, for instance, is based firmly on this belief, with Diamond tracing the unequal course of human history to the *cultural* changes between otherwise near-identical human populations subsequent to the advent of agriculture.

But as argued earlier, such a stance appears as much politically motivated as biologically justified – as, for example, with Diamond’s contradictory arguments about the likelihood of ‘biological’ differences between long-separated human groups. Indeed, Diamond’s plausible-seeming evolutionary argument for differences in intelligence between members of hunter-gatherer groups in Australasia and members of long-settled agricultural societies in Eurasia indicates only one of a number of theoretical flaws in the standard arguments that human beings have remained fairly much the same over the course of our species’ existence, despite the separation of populations for tens of millennia.

For instance, we could similarly question the claim that the evolutionary timescale since our African exodus is too short to have resulted in meaningful evolutionary divergence between different populations. Genetic changes in response to farming, or to the prevalence of malaria and other diseases, all occurred in some human populations, but not others, within the last several millennia alone (with most being a result of changing cultural practices).⁶³ Lactose tolerance – the ability to digest milk in adulthood – is a straightforward example of such recent genetic divergence. This ability, the result of a minor change in a single gene, arose perhaps 5,000 years ago in cattle-rearing societies in Europe (and later, and independently, in Africa), and allowed these peoples access to a rich energy source, animal milk, that elsewhere makes the majority of human adults ill.

Moreover, the evolutionary history of lactose tolerance (to give one clear example) provides a challenge to several other common assumptions about human *biological* evolution; for instance, that such evolution largely ceased once complex cultural behaviour had arisen, or that limited genetic variation between human populations means that minor genetic differences are unimportant. Lactose tolerance, by contrast, is (in evolutionary terms) recent; it arose because of, not despite, cultural practices; and it is a slight genetic variation that carries great potential significance – that is, lactose tolerant peoples can exploit an energy resource unavailable to non-lactose tolerant peoples, even if the latter adopt similar cultural practices.⁶⁴ Analogous conclusions could be drawn from the evolutionary history of genetic changes in response to malaria and other diseases.

Such reasoning also raises questions about the standard argument that there is more genetic variation within a race than there is between one race and another. What does this actually mean? Chris Stringer, for instance, points out that members of widely separated human populations (say, Eskimos and Australian Aborigines) are more genetically alike than are members of separate gorilla populations in the same African forest.⁶⁵ Our other primate relatives, the chimpanzees and the orang-utans, display similarly wide genetic diversity, despite close geographic proximity; human beings, therefore, are the odd primate out in being widely dispersed yet genetically

highly homogenous. Stringer uses this genetic fact as an argument for the superficiality of human racial differences.

Yet degree of genetic heterogeneity or homogeneity is not necessarily the significant issue – rather, it is the effect that the genetic differences have at the phenotypic level that is important. After all, despite a high degree of genetic difference, gorillas sharing the same forest are still phenotypically very similar.⁶⁶ Conversely, while there may indeed be only slight genetic differences between Eskimos and Aborigines, say, these relatively minor differences may be of great consequence in the different physical *and* social environments in which these people live. As philosophers Massimo Pigliucci and Jonathan Kaplan point out in their discussion of the relative lack of genetic variation in *Homo sapiens* (and the political arguments that are based on this fact): “The question is not whether there are significant levels of between-population variation overall, but whether there is variation in genes associated with significant *adaptive* differences between populations”.⁶⁷

Obviously, deciding the exact details and consequences of any such genetic variation is a task for evolutionary biologists, not social theorists (although see Sesardic, 2010 for a detailed statistical critique of Lewontin’s argument about intra- and inter-group genetic differences). The point, though, is that the standard evolutionary dismissal of the significance of human biological diversity, like the related social science rejection of the idea of non-superficial human differences, is in many respects inconsistent or unconvincing, and it is at least theoretically plausible that humans do in fact differ more than usually believed.

This is the very conclusion reached by evolutionists Gregory Cochran and Henry Harpending in *The 10,000 Year Explosion: How civilisation accelerated human evolution*. As their book title suggests, Cochran & Harpending reject the ‘conventional wisdom’ that human evolution somehow stopped after our species dispersed from Africa, and they instead argue that it has actually accelerated, especially in the last 10,000 or so years (i.e., as a consequence of the advent of agriculture). The type of hard evidence they provide to support this argument is that discussed above – i.e., the genetic changes, such as lactose tolerance and disease resistance, that are known to have arisen recently as the result of cultural processes in some populations but not others.

Moreover, Cochran & Harpending argue that the different cultural environments of different human groups would also have brought about changes in cognitive and behavioural traits. For example, they suggest that the different pressures of life in more densely populated agricultural societies, compared to traditional hunter-gatherer societies, would have selected for more docile or submissive human psychologies, analogous to the process by which previously wild animal species were domesticated. In other words, agriculturalists were perhaps ‘tamed’ by the selective pressures of their new cultural environment – or, as Cochran & Harpending more evocatively describe it: “If your ancestors were farmers for a long time, you’re descended from people who decided it was better to live on their knees than to die on their feet.”⁶⁸

Cochran & Harpending’s speculation here appears no less plausible (or implausible) than that proffered by Jared Diamond on the adaptive pressures for greater intelligence in hunter-gatherer societies versus disease resistance in agriculturalist ones. Yet there appears little to prevent this reasoning being applied to the ultimate historical causes of social differences between populations today – that is, to provide evolutionary biological explanations for some of the obvious social

inequalities in the modern world. Indeed, this is the very direction that Cochrane & Harpending head when they suggest that, because the evolutionary response to agriculture “affected the distribution of cognitive and personality traits”, these changes likely “played a crucial role in the development of civilization and the birth of the scientific and industrial revolutions”.⁶⁹

Cochrane & Harpending do not shy away from an obvious implication of this line of argument: that by overlooking possible evolved psychological differences between peoples, current social policies aimed at reducing inter-group disparities may be less efficacious than often hoped: “If the root causes of [social] differences are biological changes affecting cognitive and personality traits, changes that are the product of natural selection acting over millennia, conventional solutions to the problem of slow modernization among peoples with shallow experience of farming are highly problematic”.⁷⁰

This kind of Darwinian reasoning, therefore, leads to a conclusion directly counter to the widely held egalitarian belief that racial inequalities are *solely* the result of unequal social environments; Cochrane & Harpending’s evolutionary argument, by contrast, implies that social inequalities may also be partly the result of genetic differences between peoples themselves.

Darwinian reasoning about racial differences, then, can readily result in politically unpalatable conclusions, especially for political egalitarians. How, then, should Peter Singer’s posited Darwinian left proceed if accepting the fact of human evolution implies that some aspects racial inequality *might* be the result of biological differences between racial populations?

Here, Steven Pinker makes an apposite point: “The fact that a hypothesis is politically uncomfortable does not mean that it is false, but it does mean that we should consider the evidence very carefully before concluding that it is true”.⁷¹ In respect of *The 10,000 Year Explosion*, for example, Pinker argues that, while Cochrane & Harpending speculate about recent evolved changes in psychological and behavioural traits, “none of the selected genes they describe has been implicated in behavior; all are restricted to digestion, disease resistance, and skin pigmentation”.⁷²

Thus, in contrast to Cochrane & Harpending’s evolutionary account of reduced aggression or ‘self-domestication’ in agricultural populations, Pinker concludes that while human predispositions towards violence and nonviolence may have been affected by recent biological evolution, at least in theory, as yet there is no firm evidence that this has occurred.⁷³ Similar caveats could be raised against other aspects of Cochrane & Harpending’s thesis discussed above.

Nevertheless, while hard evidence for meaningful cognitive or psychological differences between races may be lacking, the *possibility* of such differences is consistent with modern evolutionary theory. Indeed, in criticizing the political inferences that are often drawn from the lack of evidence of behavioral or cognitive differences between racial groups, Pigliucci & Kaplan argue that “it is intellectually dishonest to move from lack of evidence of such differences to claiming that there is evidence for an absence of such differences” – for example, to claim that because there is no undisputed evidence of psychological differences at present that such differences cannot therefore exist. According to Pigliucci & Kaplan, this is an argument often, but illegitimately, advanced by evolutionary scientists themselves.⁷⁴

This, though, is as far as I will take this line of argument. My aim has been to indicate grounds for questioning standard assumptions about race – or, rather, of the significance of genetic differences between racial populations (which do not necessarily overlap with folk conceptions of ‘race’).

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Historically, many of the more pernicious beliefs about race – including ideas about the deep ‘biological’ nature of racial differences – have been used to justify discrimination, segregation, oppression, slavery and genocide; thus, as Philip Kitcher emphasizes, such beliefs have caused incalculable harm. As a result of this appalling history, modern scholars are understandably wary about if and how the term ‘race’ should be employed in a human context, with some suggesting that any discussion of race should be eliminated entirely.⁷⁵ Similarly, the biological aspects or connotations of race are often downplayed or denied.

Given the highly politicized nature of the race debate, therefore, the scientific or empirical facts about race (as a biological phenomenon) are difficult to clearly discern, especially by non-scientists. The (albeit brief) assessment of various arguments above suggests that blanket denial of biological aspects of race is likely to be misplaced. Most especially, if we are to accept that human beings are evolved animals, and that over the course of our evolution our species has been subject to similar Darwinian processes experienced by other organisms, then some degree of racial divergence is only to be expected.

Of course, an implicit assumption here is that a Darwinian perspective on racial difference *should* be adopted. In the next chapter I defend the belief that racial diversity warrants more open discussion by examining a counter proposal: the argument that, however well-intentioned our motivation for investigating human genetic diversity may be, this is likely to have wider negative social consequences – most especially, by reviving deleterious popular beliefs about racial differences.

There are certainly real genetic differences between human populations and the scientific study of these differences can help unravel the roots of disease, develop new medicines, unpick the details of deep human history; perhaps even eventually even tell us something about the nature of intelligence. Such genetic differences are, however, not the same as racial differences.

Kenan Malik, *Strange Fruit*

Chapter 10: Researching ‘Race’ – Beyond the Pale?

In his 2007 memoir, *Avoid Boring People*, molecular biologist and co-discoverer of the structure of DNA James Watson argued:

There is no firm reason to anticipate that the intellectual capacities of people geographically separated in their evolution should prove to have evolved identically. Our wanting to reserve equal powers of reason as some universal heritage of humanity will not be enough to make it so.¹

As Watson implies, many egalitarians would be uncomfortable with the idea of evolved cognitive differences between racial groups; nevertheless, his reference to our ‘wants’ not being enough to alter biological facts is a clear example of the fact/value distinction of most concern to Peter Singer. Thus far, then, Watson’s claims about human difference, while perhaps unwelcome, could still be accommodated within Singer’s Darwinian left project: egalitarians should not let normative considerations blind them from at least considering this possibility.

In promoting his memoir, however, Watson expanded on the likelihood of psychological variation between races by suggesting, in a now-notorious newspaper interview,² that possible evolved cognitive differences might also explain some of the social problems faced by those of black African descent. As science writer Keenan Malek puts it: “Watson translated the careful wording of the book into the language of the street. People expect everyone to be equal, he claimed, but ‘people who have to deal with black employees find this is not so’”.³ In the same interview, Watson concluded: “I am inherently gloomy about the prospect of Africa ... All our social policies are based on the fact that their intelligence is the same as ours – whereas all the testing says not really.”

Here, Watson – a towering figure in modern genetic science – implies that some races are less intelligent, and less capable, than other races. Moreover, he supports this argument with reference to the likely divergent evolution of different human groups (and in doing so, neatly illustrates why many social theorists are reluctant to engage with human evolutionary theory).

The problem (for evolutionary-informed egalitarians) is that Watson’s claims might *seem* to have at least a sheen of plausibility – for, if evolved racial differences really do exist, this might appear to make sense of some of the obvious social and economic disparities between races. Nor is Watson alone in coming to this conclusion through evolutionary reasoning; behavioural geneticist Philippe Rushton, in his controversial *Race, Evolution, and Behaviour*, similarly links supposed differences in intelligence between races with differences in the social well-being of members of these racial groups.⁴

Writing in 1995, science writer Marek Kohn notes how research into the biological basis of race has “the embarrassing capacity to demonstrate just how readily modern evolutionary ideas lend themselves to racialization”.⁵ A decade or

so later, Watson's off-the-cuff musings bear out Kohn's point.

In chapter 9, I pointed out how the fact of divergent human evolution does suggest the possible existence of meaningful racial differences (or, at least, does not deny this possibility). However, it does not follow that this possibility should therefore be acknowledged or explored. As the Watson example illustrates, evolutionary reasoning has the potential to cause real social harm: in this case, the possibility that racist ideologues could co-opt the prestige of science (and of James Watson) to bolster their political arguments – say, about the detrimental social consequences of immigration or of the inevitability of racial inequality.

In this chapter, therefore, I examine the possible wider consequences of research into racial differences. Evolutionary-informed egalitarians have a choice between endorsing scientific research into this area or of opposing such research. One motivation for the first course of action is the hope of gaining a deeper understanding of, say, possible evolved differences into susceptibility to disease, and of means to combat their deleterious social effects (e.g., health disparities). The justification for resisting such research is that it has the potential to revitalize socially harmful practices and beliefs, regardless of how well-intentioned the researchers themselves may be.

I begin with a consequentialist approach to research into human diversity by asking, irrespective of the facts (or possible facts) of human genetic diversity, whether egalitarian aspirations for a racial equality would be more readily realized by accepting evolutionary biological perspectives on 'race' or by rejecting them. I will examine two extreme positions on this issue: the idea that scientific research (or the search for 'truth'), such as that into human diversity, should be pursued no matter what the social consequences; and the opposing view that, in the case of our own species, we might be better off curtailing (or even abandoning) certain areas of evolutionary genetic research. The recent Maori 'warrior gene' controversy is used as an example of the costs and benefits of genetic research focused on distinct racial populations.

I end up advocating a *pragmatic* approach to research into human genetic diversity – essentially, that egalitarians should be open to the possibility of evolved racial differences, while being fully aware of both the potential costs and benefits of genetic research that touches upon the question of race. The pragmatic task is to steer and open an honest course away from the possible deleterious consequences of such research and towards that which will provide genuine benefits to otherwise oppressed or marginalized people. The chapter concludes with a real world case study of how such pragmatism may work in practice.

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Evolutionary psychologist Satoshi Kanazawa, whose own research into racial differences has provoked strong censure,⁶ is forthright in arguing that scientists should ignore political misgivings about ETOHN: "Truth is the only criterion that should matter or be applied in evaluating scientific theories or conclusions. They cannot be 'racist', 'sexist', 'reactionary', 'offensive' or any other adjective. Even if they are labelled so, it does not matter."⁷

According to Kanazawa, *applying* scientific knowledge in an attempt to improve human lives is a job for politicians, doctors and policy-makers, not for research scientists themselves. Nevertheless, he goes on to argue:

Any successful intervention . . . must be based on the true understanding of nature. If social engineers do not know the causes of what they are trying to create or eliminate, how can they possibly hope to do so? By opposing and entirely disregarding certain scientific theories and conclusions a priori on ideological and political grounds, because they believe they should not be true, they risk not achieving their aim of helping people.⁸

Initially, this argument appears compatible with that of Peter Singer: that the left must base its policies on what *is* the case with human beings, not on what they might wish *ought* to be the case (in other words, that egalitarians must maintain the distinction between biological facts and political values).

Yet, most especially in the case of race, is this not a naïve stance? After all, Darwinism's own dark history reveals how easily scientific facts (or supposed facts) can be misinterpreted and misapplied. If nothing else, the appalling historical examples of Nazi racial science should make us pause before accepting Kanazawa's blunt opinion that "Nothing else should matter in science except the objective, dispassionate pursuit of truth, and [that] scientists must pursue it no matter the consequences".⁹

Philosopher Philip Kitcher presents a more nuanced appreciation of the possible social consequences of research into human genetic diversity. In Kitcher's view, the difficulty with such biological projects "is that they appear to introduce a conceptual framework that can easily revive unjust and damaging social practices"¹⁰ – i.e., racist beliefs and attitudes. As regards the scientific pursuit of 'truth', no matter what the consequences, Kitcher goes on to argue:

We would rightly worry about the continual deployment of a concept in fundamental physics, if thinking about nature in terms of these concepts could lead, relatively directly, to the discovery of principles about the release of energy that would make massively destructive bombs available to anyone. Similarly, if a concept, valuable to some investigators pursuing a particular research question, might cause, in the social world into which that concept is likely to make its way, considerable burdens for many people, then one ought *at least* raise the question of whether such research is warranted.¹¹

This raises a crucial dilemma for any Darwinian left attempt to apply evolutionary reasoning to racial inequality. On the one hand, the possibility of meaningful genetic differences between racial populations does not impact directly on the egalitarian political desire to address racial inequality, especially if a better understanding of these differences could be used to effect beneficial social change. On the other hand, and as graphically illustrated by the historical misuse of Darwinian ideas, biological concepts of race, when combined with pre-existing social prejudice, play into the hands of those promoting oppressive racist political practices. The potential benefits of an open and accurate account of human genetic diversity, therefore, might be outweighed by the detrimental consequences of reinforcing harmful social beliefs about deep or ineluctable divisions between races.

Such are the problems associated with the biological concept of race, Kitcher argues, "it might be reasonable to suggest that, when all the consequences of using that notion are taken into account, we would be better off to give up on particular lines of research".¹² For instance, while a biological notion of race (say, of genetic 'clusters' identifying distinct human populations) might be useful in enquiries into our

species' prehistoric patterns of migration, the simple desire to better understand this aspect of human history must be weighed against the possible social harm that the 'race' concept carries with it. Here, Kitcher points to the potential for misunderstanding when discussion of genetic diversity enters the public domain, especially given "the pressure on scientific journalism, even in the most apparently respectable media, to sensationalize recent findings".¹³

The recent Maori 'warrior gene' controversy, centred on apparent genetic differences between racial populations in New Zealand, provides a contemporary example of the issues at stake here – that is, of the potential social costs and the potential social benefits of such research. I will use this as a real world case study to which the more abstract philosophical discussion can then be applied.

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To provide a brief background: in mid-2006 (and again in 2009) popular media sources in New Zealand and Australia reported a scientific claim that Maori carry a 'warrior gene', making them prone to violence, criminality and risky behaviour.¹⁴ The basis of this story, reported under headings such as "Maori are genetically wired to commit acts of violence",¹⁵ was an epidemiological study of monoamine oxidase (MAO) genes (those linked to various behavioural disorders, including depression, addiction and aggression). The study's particular focus was on the gene sub-type, MAO-A, which had earlier been dubbed the 'warrior gene' due to its apparent association with aggressive behaviour in Rhesus macaque monkeys.¹⁶

The medical basis for the New Zealand research, however, was not on aggressive behaviour, but rather on the association between MAO-A and addiction; more especially, the relationship between racial variation in MAO-A frequency and differential patterns of alcohol and tobacco dependence. As genetic data indicated that the frequency of the relevant gene allele was almost twice as high amongst Maori as Pakeha males, the ultimate purpose of the research was to investigate whether genetic information on alcohol/tobacco dependence could be used in developing more appropriate treatments and better health outcomes for Maori (i.e., those statistically more prone to alcohol- or tobacco-related illnesses).

Up to this point, the epidemiological rationale of this study illustrates the potential benefits of genetic investigation into differences between racial populations: that such research may have had positive health benefits for marginalised groups such as Maori. How, then, did this benign-seeming study result in such sensational news reports and headlines – reports, moreover, that could reinforce existing prejudiced beliefs about the causes of social inequality between Maori and non-Maori?

In providing an evolutionary explanation for the apparent higher frequency of MAO-A in modern Maori, the lead researchers, epidemiologists Rod Lea and Geoffrey Chambers, developed a 'warrior gene hypothesis', speculating that the gene may have been positively selected during the ocean voyaging and inter-tribal wars that supposedly characterised ancestral Polynesian migrations across the Pacific, and during the Maori people's own discovery and settlement of New Zealand. They supported this hypothesis by arguing that Maori martial prowess was historically well-recognised and that "reverence for the 'warrior' tradition remains a key part of Maori cultural structure today".¹⁷

In defending their hypothesis in print, Lea & Chambers denied that this provided a biological explanation for present-day social dysfunction in Maori

communities; nevertheless, Lea was less guarded in a media interview about the implications of the apparent prevalence of MAO-A in Maori:

Obviously, this means they are going to be more aggressive and violent and more likely to get involved in risk-taking behaviour. ... It is controversial because it has implications suggesting links with criminality among Maori people. I think there is a link. It definitely predisposes people to be more likely to be criminals and engage in that type of behaviour as they grow older.¹⁸

Here, the explicit claim is that Maori are genetically and behaviourally different from other populations, and that they are inherently more aggressive than non-Maori. That such claims are apparently based on scientific evidence reflects Philip Kitcher's concerns about the potential social costs of this sort of genetic research, especially when it is reported in the public domain. In this case, by reinforcing simplistic biological explanations for complex social issues – say, that Maori are inherently and ineluctably violent – political support for ameliorative social policies could be eroded. Why waste taxpayer dollars on problems that seemingly cannot be fixed?

Nevertheless, a more constructive egalitarian argument could also be constructed from the genetic research into the Maori 'warrior gene' – or, at least, into the apparent prevalence of MAO-A in Maori males. As MAO-A is implicated in risk-taking behaviour, it initially appears plausible that it was positively selected during the Polynesian expansion across the Pacific (e.g., with those spear-heading each new migration, such as that to New Zealand, likely less risk-averse than those choosing to stay behind). This could, conceivably, account for the gene's apparent frequency among Māori. Importantly, however, in the relevant genetic studies upon which the 'warrior gene' hypothesis was based, the highest frequencies of MAO-A were not found among Māori but, rather, among Chinese males.¹⁹ This could immediately cast doubt on any evolutionary speculation about how or why this gene varies between racial populations.

Alternatively, one could speculate that, just as risk-taking traits may have proved advantageous in island-colonising ancestral Polynesian environments, so too may similar traits have been in the different environments faced by ancestral Chinese. In a modern context, certainly in New Zealand, risk-taking traits may continue to be advantageous in the commercial settings stereotypically associated with Chinese; in an economically-deprived environment, stereotypically associated with many Maori, these self-same characteristics may prove disadvantageous, especially if they are expressed in drug-taking, alcohol abuse or criminal behaviour. Given a different social environment, the 'warrior gene' might be better described as an 'entrepreneurial gene'.

At the same time, however, the 'warrior gene' case also illustrates the slippery slope nature of research into human biological diversity. For example, if we accept the potential benefits of genetic research into addictive behaviour, why not also investigate the possible genetic aspects of other behaviours, such as crime and violence, which also have a deleterious impact on many indigenous communities? Understanding the genetic basis of violence, say, and of how this impacts on certain racial populations in particular, may help us discover additional means to tackle this social issue, too. And why stop there? Research might be directed at uncovering the genetic basis (if any such exists) of criminal behaviour, or of the educational underachievement and greater family dysfunction often

reported in marginalised racial communities.

Genetic enquiry might even focus on finding a ‘cure’ for these social problems.²⁰ Expressed like this, egalitarians would quite rightly be concerned about the political implications of any such research. Furthermore, as a slippery slope argument, there seems no principled way of drawing a line between genetic investigation of some recorded differences between populations (e.g., in tobacco addiction) but not others (e.g., in crime rates).

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With the ‘warrior gene’ controversy as a real-world example of the social and political pitfalls of purportedly objective genetic research, Kitcher’s caution (that scientists should at the very least consider the possible social costs of their research) appears reasonable.

In respect of this type of human genetic research, therefore, Kitcher suggests that “we need a thorough survey that considers all the potential uses and abuses”.²¹ In contrast to Kanazawa’s belief that scientific truth must be pursued *regardless* of consequences, it appears prudent to first weigh up the possible social costs of a particular action before deciding whether to pursue it. Thus, from a consequentialist perspective, evolutionary-informed egalitarians could reject any scientific research likely to have a detrimental impact on attempts to bring about greater social equality.

Nonetheless, the situation here is far from straightforward. How, for example, would the potential ‘uses and abuses’ or social costs/benefits of genetic research be assessed? To again use the ‘warrior gene’ case as illustration: an epidemiological study into the MAO-A30bp-rp variant, its associations with tobacco and alcohol dependence, and the variation in this gene allele’s frequency between different racial groups would probably excite little media or political controversy, while still providing useful information for diagnostic, preventative or treatment regimes for those whose health is affected by these substances. In terms of an initial cost/benefit analysis (or uses/abuses survey), the actual genetic research on tobacco/alcohol dependence among Maori would appear justified – i.e., as potentially beneficial to an otherwise marginalised group. Much of the furore surrounding the Lea & Chambers’ hypothesis, however, was due to the attention-grabbing term ‘warrior gene’ and the hyped media speculation on its relevance to contemporary social issues.

How, then, might those conducting Kitcher’s proposed uses/abuses survey proceed if potentially beneficial genetic research was open to possible *but not inevitable* media misreporting or sensationalizing? Kitcher himself is quick to emphasise that his suggestion “is not a matter of *censorship* – the idea of a ‘thought police’ that supervises research and issues interdictions against some programs is obviously counterproductive (as well as being distasteful)”.²² But this simply begs the question of how ‘political’ scrutiny of human genetic research – that which assessed *potential* social or political costs *and* benefits – could be effectively carried out if not via some form of heavy-handed scientific censorship.

Indeed, the present confusion and uncertainty about race, and the taboo-like nature of the topic, itself hinders research of potential benefit to marginalised peoples: for instance, given the potential for controversy, health researchers may avoid investigating the genetic basis of addiction and thus fail to develop more efficacious treatments for deleterious addictive behaviours.

Kitcher himself arguably helps to maintain the taboo on open discussion of biological aspects of race by likening it to freely available information on ‘massively

destructive bombs'. By use of this analogy, Kitcher implies that, just as we cannot but be negatively affected by the detonation of a bomb (or by the threat of such a bomb), so too would we be negatively affected by widely disseminated genetic concepts of 'race'. Yet is this really the case? For instance, if evidence of meaningful genetic differences between racial populations were widely broadcast, would this unavoidably impact upon our political beliefs? Would such evidence inevitably lead to racism?

Surely not: the egalitarian moral belief that people should be treated equally is not dependent on people actually being equal in all respects; regardless of the question of race, human individuals vary in all manner of important ways, but this does not deny the moral concept of equal treatment and respect. Thus, if it did turn out that racial populations differ in various meaningful ways, this would not in itself impact on our egalitarian beliefs (even though it might be highly relevant to our egalitarian practices – i.e., efforts to bring about greater equality of outcome).²³

In the opinion of a scientific purist like Kanazawa, the costs of taking political considerations into account are themselves likely to outweigh any benefits, especially if scientists "become tempted to shade the truth" or to self-censor potentially offensive findings:

What if a scientific conclusion is offensive and true? What is a scientist to do then? Many scientific truths are highly offensive, but scientists must pursue them at any cost. ... Academic freedom must be upheld, not because it is an inalienable, God-given right of all scientists, but because it is the best way to attain the truth. Sunlight is the best disinfectant.²⁴

Leftist political scientist James Flynn (discoverer of the eponymous 'Flynn effect' of rising IQ levels) similarly indicates the counter-productive nature of creating academic 'no-go zones'. With respect to the controversial question of race and intelligence, Flynn argues that making it taboo to even discuss this issue does more than simply restrict freedom of debate and inquiry: "those who boycott debate forfeit a chance to persuade. They have put their money on indoctrination and intimidation. A good bet in the short run but over the long course that horse never wins".²⁵

Without a scientifically accurate account of racial diversity, how are we to know what to believe? In addition, failing to address or to understand the evolutionary biological aspects of race leaves egalitarians unable or unprepared to challenge misinterpretations of genetic research, beyond refusal to engage in debate. How, therefore, are egalitarians to convincingly counter racist distortions of the concept of race? Human genetic research will continue to expand, and the views of the egalitarian left risk becoming sidelined unless egalitarians themselves adopt an open and honest approach to the subject.

Given the odious history of Darwinian theories of race, Philip Kitcher is indeed warranted to suggest some form of cost/benefit (or use/abuse) analysis of proposed genetic research into racial differences. However, as part of any such analysis, the detrimental consequences of creating a taboo on discussion must also be taken into account – i.e., that making certain subjects off limits to debate may cause people to lose confidence in politically palatable accounts of racial inequality and of social policies aimed at ameliorating such inequality. This, in turn, risks playing into the hands of racist ideologues who may present themselves as simply telling the unpalatable 'truth' that others are too scared to discuss (a tactic adopted, for instance, by the anti-immigration European far right²⁶).

At the same time, another obvious negative consequence of avoiding biological aspects of human diversity is that it could prevent a clearer understanding of the genetic basis of disease, and thus hamper research that could genuinely improve peoples' lives. The epidemiological rationale of the MAO-A study of Maori is a case in point: that is, as an attempt to understand tobacco and alcohol addiction it could provide a better understanding of an issue that has a major deleterious impact on Maori communities.

How, then, might an evolutionary-informed left steer a course between genetic research that may be of benefit to marginalized peoples, and the potential revival of social theories and attitudes that may have a deleterious impact on these peoples? My own answer to this question is a version of the *pragmatism* advocated by Philip Kitcher (albeit that Kitcher's own pragmatism is aimed at circumscribing certain areas of human evolutionary genetic research).

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Briefly, Kitcher suggests that while certain biological concepts, such as races or sub-species (or even *incipient* species), may be useful in describing the non-human natural world, this may not be the case with our own species. In his view, in some circumstances it may be justified to treat human beings as separate from the rest of the living world. For instance, a *pragmatic* approach to human biology would allow us to question the applicability of standard biological descriptions to our own species; thus, as regards the question of 'race':

[P]ragmatism renders suspect a crucial part of the argument for grounding races in biology. Once you move to pragmatism, you lose the general license to introduce a subdivision of *Homo sapiens* on the grounds that the principle of division accords with the intraspecific distinctions biologists make in other cases. The fact that it is useful for certain purposes ... in a widespread species of oak to talk about local varieties, or local races, does not mean it will be useful to mark out similar divisions in the case of our species. Pragmatism insists that the usefulness be demonstrated in the particular case at hand.²⁷

Kitcher adopts such pragmatism largely for 'negative' purposes – i.e., to provide a bulwark against biological *realism* about the likely existence of human racial divisions, and thus prevent the reintroduction of socially harmful concepts of race.

Here, however, I will argue that similar pragmatism could be used as a more 'positive' analytical tool; that is, as a means for an evolutionary-informed left to accept the potential reality of distinct racial populations in certain circumstances or for certain purposes, while being ready to question the use of biological concepts in other situations.

In effect, I am arguing for a change of focus from standard leftist perspectives on race. Instead of simply rejecting or avoiding biological aspects of race – an approach that, as argued at length above, has resulted in much confused and contradictory argument – evolutionary-informed egalitarians could instead begin by accepting, at least in principle, the possible existence of biologically-meaningful human races and therefore move beyond the left's counter-productive unwillingness to openly address the issue.

The huge danger, as Kitcher quite rightly points out, is how biological concepts of race can so easily be twisted by racists. But egalitarians who are informed about evolutionary theory would be more able to challenge the spurious arguments of racists than those who avoid the issue, or who attempt to defend their position through intimidation. Just as a belief in equality is not denied by the possibility of difference, no more is racial hatred defensible by the possible existence of genetic differences between racial groups.

Indeed, the more light that is shone upon obvious racial inequalities in social outcomes, the more we will come to understand how genetic influences are themselves dependent on environmental conditions – in which case, the moral imperative is to change these conditions. Given the political will, a more equitable society, and a decent standard of living for all, is achievable *even if* human groups indeed differ more than egalitarians have traditionally assumed.

The Maori ‘warrior gene’ case can usefully illustrate what I mean by this (positive) pragmatism about human race. For instance, for the purposes of understanding the high incidence of alcohol and tobacco addiction amongst Maori, in which genetic factors are implicated, making some sort of *biological* racial division is useful – e.g., identifying relevant genetic differences, such as the prevalence of MAO-A, between different racial populations. This would be similar to the way in which a *sociological* racial division is useful in identifying environmental influences on health disparities, such as differences in health provision, education, income, discrimination, and so on.

However, in the particular case of MAO-A, a more detailed evolutionary explanation for genetic differences between racial groups is not obviously necessary. Indeed, as the sensationalised media headlines graphically illustrate, the pitfalls of speculating about the selection of ‘risk taking traits’ in an ancestral environment, outweigh the benefits of providing an evolutionary explanation for any racial variation in MAO-A. From a health perspective, the (apparent) fact that such genetic differences exist is the relevant issue.

The guiding principle here would be that suggested by Kitcher above: that the usefulness of research (or speculation) be demonstrated in the particular case at hand. In the example of Maori and MAO-A, a pragmatic Darwinian left could accept an evolutionary biological race division as warranted, say, in identifying variation in gene prevalence for remedial medical purposes, but remain cautious about how further speculation on the evolutionary cause of this genetic variation may be perceived (or misperceived) by a more general audience.

In some circumstances, of course, an evolutionary perspective may be illuminative. In the case of Maori and other Polynesians, for example, a fuller understanding of ancestral migrations across Asia and into the Pacific may provide important insights into contemporary Pacific peoples’ health and social well-being (such as a clearer understanding of the causes of rising diabetes rates among Pacific peoples). This rationale would, of course, apply to similar genetic research into human migration and human diversity in other regions of the world.²⁸

The *positive* pragmatic approach I am here advocating would also avoid the contradictions in Jared Diamond’s influential claim that differences in peoples’ environments, and not in peoples’ biology, provides the ultimate explanation for modern racial inequality.

The very title of Diamond’s *Guns, Germs and Steel* indicates the important qualification to any exclusively environmentalist account of the history of human societies; that is, according to Diamond, not only did European explorers and empire-

builders have certain technological advantages over the indigenous populations with whom they came into contact (with these advantages explicable in terms of environment), they also had a crucial biological one: resistance to germs. In other words, Europeans were genetically endowed with partial immunity to the endemic diseases that had swept the more densely populated Eurasian landmass for millennia, but for which peoples elsewhere in the world were evolutionarily unprepared.²⁹

Despite his claim that environment alone accounts for the different historical trajectories of different peoples, Diamond's ultimate explanation for the emergence of a divided world of haves and have-nots explicitly invokes evolved biological differences between distinct peoples. What is more, this explanation is premised on Darwinian adaptive response to changes in the environment (e.g., the cultural shift to sedentary agricultural lifestyles); changes, moreover, that occurred relatively recently in evolutionary time. Diamond's own *Guns, Germs and Steel* thesis, in other words, contradicts both his claim that any 'biological' explanation for inequality is racist, and that human beings have not diverged in any meaningful way since our species' exodus from Africa.

A pragmatic approach to the question of racial difference, by contrast, would avoid this inconsistency by acknowledging the possibility of some biological explanation for racial inequality (e.g., differences in disease resistance), and accepting the possibility of some meaningful divergence between populations over the course of our species' history. The point, however, is that it is up to us how and where we apply possible evolutionary genetic explanations.

For example, as pointed out in Chapter 9, New Zealand's health statistics show appalling disparities between Maori and non-Maori in the incidence of disease, chronic ill-health and average life expectancy, with similar disparities recorded between indigenous and more recently-arrived populations in many other parts of the world. And while such health disparities have obvious social causes (stemming from post-colonial discrimination, oppression and marginalisation), genetic factors are also implicated. From an egalitarian political perspective, addressing these health disparities could have positive knock-on effects for other social inequalities, such as differences in income, employment, education and overall quality of life.

To conclude this chapter, therefore, I will examine evolutionary-informed arguments about one particular disease – gout – that impacts particularly strongly on Maori (and other Pacific Islanders) in New Zealand, and use this as a case study of how the pragmatic approach advocated above may be put into effect.

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Gout is a disease that causes painful swellings and joint movements, and which may develop into progressive joint destruction and disability. It occurs in 1-2% of Europeans, but is found in 15% of men in Maori and Pacific Island populations – the highest prevalence in the world.³⁰ A clearer understanding of the genetic basis of gout, and thus of genetic differences between racial populations, is likely to have a major beneficial impact on the well-being of a sizable proportion of the Maori and Pacific Island community in New Zealand.

Unlike the speculative evolutionary hypothesis to account for the prevalence of MAO-A in Maori males, the evolutionary genetic history of gout in modern Maori is based on firm scientific evidence. For instance, according to medical biochemists Tony Merriman and Nicola Dalbeth, evidence of gout has been found "in skeletons from the 3000-year old Polynesian Lapita culture in Vanuatu", with the high

incidence of gout in modern Polynesian populations “likely to be caused by the founder events that occurred during the Polynesian settlement of the Pacific”.³¹

Here, however, the most relevant aspect of gout’s evolutionary history is that, despite being found in ancestral Maori populations in the Pacific islands, and being prevalent in modern Maori populations, it was *not* recorded in pre-European Maori populations in New Zealand. How can this be the case?

According to Merriman & Dalbeth: “Gout may have been rare in pre-European Maori owing to a diet consisting largely of kaimoana (seafood), birds and tuberous vegetables.”³² This is highly significant: that is, it provides a dramatic example of the crucial influence of the environment on how and if genetic traits are expressed – in this case, that environmental conditions (i.e., diet) limited the expression of gout in pre-European Maori populations, despite a genetic predisposition for that disease. Furthermore, the subsequent re-emergence of gout demonstrates the same significant point about the role of the environment; as Merriman & Dalbeth argue: “The modern diet rich in processed sugar (and fructose) may impact severely on New Zealand Maori and Pacific Island people, who are genetically vulnerable to developing gout.”³³

Importantly, this finding can be incorporated into egalitarian political arguments. Gout is simply one of a number of diseases that has a detrimental impact on Maori communities in New Zealand, with the high incidence of gout in the Maori population the result of both environmental conditions *and* divergent human evolution. The point, however, is that while Maori and Pacific Islanders are genetically predisposed to gout, this does not mean that the disease is therefore inevitable (as the pre-European New Zealand situation demonstrates). Appropriate action to tackle gout, therefore, must take account of both environmental *and* genetic influences.

The high incidence of gout (and of diabetes) in Maori and Pacific Island communities is directly related to the ready availability of cheap processed foods. And because Maori and Pacific Islanders are, on average, economically less well off than other New Zealanders, they are also more likely to consume such foods, or live in areas where this food is all that is available. In respect of a disease like gout, there is likely a negative feedback of poor diet contributing to ill-health and reduced income, leading back to poor diet. In addition, ill-health (such as disability brought about through gout or other diseases) contributes to other aspects of social inequality: unemployment, crime, child poverty and neglect, and so on – again with negative feedback effects.

To the extent that poor health is a contributing factor to social dysfunction, therefore, and if changing the environment could alleviate poor health, then the standard egalitarian focus on changing the environment still applies. In the particular case of gout, genetic research could form the basis for a strong argument to regulate the sale of certain foodstuffs (e.g., sugary foods) or to counter the libertarian belief that free markets provide the best outcomes for consumers; in poorer communities, unregulated market forces provide cheap but unhealthy foods, and this exacerbates the poor social conditions in which people find themselves. Genetic research into racial differences in health outcomes, therefore, could help sustain the traditional leftist argument that if we want to improve people’s lives, we must change their environment.

The point is that the social consequences of genetic traits are contingent on environment. As with the case of gout (or, indeed, the ‘warrior/entrepreneurial’ gene), a different environment would lead to different social outcomes. Thus, even

if some racial differences in behavioural traits exist, and even if these play some role in the negative social outcomes of groups such as Maori, our social and political goals would remain the same: improving these groups' social and economic environment.

At the very least, positive pragmatism would allow evolutionary-minded egalitarians to challenge the widespread belief (held by both the left and the right) that, if such differences exist, then social inequality is somehow inevitable. Such pragmatism, and especially a willingness to accept the *possibility* of evolved racial differences, appears a much better option than the current opposition and uncertainty about race and genetic research.

Whether the ultimate causes of social inequality are solely environmental or, as seems increasingly likely, the result of genetic and environmental influences, the egalitarian goal of improving people's (and peoples') lives remains the same. Gout provides a particularly clear example of how evolutionary-informed research can be used as the basis for egalitarian political argument. In the next chapter, I examine whether a similar approach could be adopted with more contentious examples of possible behavioural and cognitive differences between races.

[H]ope and pride and not despair are the ultimate legacy of genetic diversity, because we are a single species, not two or more, one great breeding system through which genes flow and mix in each generation.

Edward O. Wilson, *On Human Nature*

Chapter 11: A Pragmatic Approach to Genes & Environment

An evolutionary-informed left would have to accept the theoretical possibility of physical *and* cognitive or behavioural differences between racial populations. An important pragmatic issue, however, is the wider social consequence of any evolutionary perspective on racial inequality. For instance, as Jared Diamond's *Guns, Germs and Steel* thesis indicates, Darwinian reasoning has great explanatory force in accounting for differences in susceptibility to disease, with genetic research in this area likely to provide information of benefit to those seeking to address health disparities between different racial groups.

At the same time, however, an evolutionary genetic perspective on race may result in socially divisive explanations for observed social inequalities between racial groups (e.g., in income, education, employment, and so on) – for example, as implied by James Watson and explicitly argued by 'race theorist' Philippe Rushton, that these obvious social disparities are the result of evolved differences in intelligence and behaviour.

Nevertheless, a pragmatic Darwinian approach to racial differences in, say, educational achievement or crime rates or levels of employment need not lead directly to the sort of conclusions touted by Watson and Rushton. Rather, a more nuanced evolutionary account of racial differences could highlight the environmental factors (such as poor diet) likely to have a much wider and more deleterious impact on the social outcomes of marginalised groups.

The prevalence of gout in Maori populations is a case in point. Evolutionary genetic research indicates not only why Maori are particularly prone to this disease, but also the crucial role of the environment (i.e., available food) in determining whether or not gout will arise. And gout is only one of a number of diseases that contributes to the poor health statistics of Maori – poor health that, in turn, exacerbates other negative social phenomena such as unemployment or educational underachievement. The point is that, if differences in Maori health are addressed (say, through informed evolutionary genetic research), this could have an ameliorative effect on other aspects of social inequality.

Thus, the social environment in which possible genetic influences are expressed remains the crucial issue, and the egalitarian desire to improve people's (and peoples') social environments is potentially reinforced, rather than undermined, by the research into evolved genetic differences.

In this chapter, I extend this line of argument and examine in more detail how a pragmatic Darwinian approach to possible racial differences may be useful to egalitarians in a wider social and political context. I use Philippe Rushton's controversial biological account of racial differences as an initial starting point. In his *Race, Evolution and Behavior*, for example, Rushton attempts to explain present day racial inequalities as the result of evolved differences between separate human populations or 'races'. Unfortunately, many egalitarians assume that Rushton's repellent conclusions are all that could be drawn from an evolutionary approach to human diversity. This is not the case; indeed, Rushton's arguments can themselves be challenged on evolutionary grounds.

I contrast Rushton's analysis of the social consequences of supposed racial differences with a more nuanced evolutionary analysis, one that emphasises the effects of genes *and* environment on human behaviour. As part of this discussion, I argue that the genetic influences on behaviour that Rushton ascribes largely to racial differences are more appropriately explained as the result of gene-environment interaction.

I then assess various other evolutionary approaches to social inequality and conclude that, if egalitarians continue to treat the subject as taboo, they are likely to overlook potentially important information about how to create a more equal society. Indeed, the preoccupation with race (by both 'racial scientists' such as Rushton and by anti-racist egalitarians such as Jared Diamond) may prevent us gaining a clearer understanding of likely *universal* evolved human behaviours.

I begin by examining how a pragmatic Darwinian left might respond to Philip Rushton's biological account of race – that is, to the sort of account that many leftists fear is an inevitable outcome of applying evolutionary reasoning to human beings. Here, I show that there is no need to reject an evolutionary perspective on our species in order to fend off the sort of argument presented by Rushton.

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Briefly, in his *Race, Evolution and Behavior*, Rushton differentiates three major race categories, Negroids (blacks), Caucasoids (whites) and Mongoloids (East Asians), on the basis of supposed differences in brain size, intelligence, life expectancy, personality, social behaviour, and the like. To account for these apparent racial differences, Rushton posits an evolutionary story: essentially, that the ecological challenges faced in migrating across temperate Eurasia selected for the particular characteristics that now distinguish 'Caucasoids' and 'Mongoloids' from 'Negroids', whose ancestors remained in tropical or sub-tropical Africa.

Rushton then applies this evolutionary account to the observed social inequalities between races today, arguing that differences in peoples' cultural and economic surroundings are the result, not of prevailing environmental factors, but ultimately of evolved differences in racial genotypes. Rushton provocatively argues that "the two races most successful in building socially and economically developed niches in which to live and rear their children have been the Caucasoids and the Mongoloids".¹ Thus, in contrast to the orthodox environmentalist accounts of racial inequality, Rushton instead argues that it is evolved human *biology* that best explains the broad sweep of human history leading to today's unequal human world.

Leftist reactions to Rushton's research have ranged from insults to intimidation, and even to the threat of criminal prosecution.² How, though, might a more pragmatic Darwinian left respond to Rushton's biological account of racial inequality? Mindful of the counter-productive nature of creating taboos, evolutionary-informed egalitarians could begin, not with a *moralistic* condemnation of Rushton's conclusions (which, after all, are based on evidence and argument that is open to scientific refutation), but rather by enquiring into the purpose and the possible wider political consequences of Rushton's research. Indeed, in the preface to *Race, Evolution, and Behavior*, Rushton himself suggests that investigations of genetic variation between human groups, in addition to environmental studies, "offer numerous ways for intervention and the alleviation of suffering".³

Initially, therefore, Rushton's research – however unpalatable his conclusions may be – appears congruent with Singer's claim that political planners must begin

with a realistic appreciation of human evolution in their designs for a better future society. Indeed, like Singer, Rushton himself emphasises the fact/value distinction: “There are no necessary policies that flow from race research. The findings are compatible with a wide range of recommendations: from social segregation, through laissez-faire, to programs for the disadvantaged.”⁴ And while egalitarians would balk at the very idea of ‘social segregation’ (i.e., apartheid), any such political suggestions would remain distinct from whatever the facts of human behaviour turn out to be. The point here is that potential racial differences do not alter our egalitarian political values; at the same time, an understanding of the nature of these differences, should they exist, could help facilitate egalitarian social change (e.g., improvements in health).

Nevertheless, given the sort of provocative rhetoric quoted above, Rushton’s protestations of disinterested objectivity appear disingenuous; it is, for example, hardly surprising that, as a converse to leftist outrage at Rushton’s work, the extreme right have embraced his findings.⁵ Again, as with the James Watson and the Maori ‘warrior gene’ controversies, it is not necessarily the evolutionary research itself that has potentially harmful social consequences, but rather the manner in which the research or speculation is presented. While Rushton is indeed correct that, in some circumstances, evolutionary genetic research into racial differences may offer means to alleviate suffering, the deliberately confrontational style that he adopts is both unnecessary *and* likely to reinforce deleterious social beliefs about race. (Similar conclusions could be reached about the ill-considered speculation provided by epidemiologist Rod Lea in the Maori ‘warrior gene’ case.)

As an example of how an evolutionary-informed left could engage on scientific terms with the sort of politically problematic argument presented by the likes of Rushton, I will examine his race-based explanation for the well-documented correlations between birth rates and economic well-being (e.g., between high numbers of children and low levels of income, or between solo-motherhood and poverty). Here, my aim is to initially demonstrate why egalitarians have good grounds to be suspicious of biologically-based accounts of this aspect of human social behaviour before indicating how a more nuanced Darwinian account may actually complement standard environmentalist approaches to this issue. In particular, I emphasise how Rushton’s evolutionary account of supposed racial differences in behaviour overlooks crucial social and environmental factors, such as differences in access to resources and in political power.

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According to Rushton, observed differences in sexual and reproductive behaviour between different racial populations are due, not to social or cultural conditions, but ultimately to evolved physiological and hormonal differences between races. For instance, to back up his claim that “Blacks are the most sexually active, have the most multiple births, and have the most permissive attitudes”,⁶ he provides the following statistics:

In the US the average woman will have 14 descendants including children, grandchildren and great-grandchildren. An average African woman will have 258. The African continent accounted for 9% of the world’s population in 1950. Despite AIDS, warfare, disease, drought and famine, Africa has grown to 12% of the world’s population today.⁷

Rushton concludes that, because the stable conditions in America appear conducive to reproduction, and the unstable conditions in Africa do not, the fact that Africans (apparently) leave an order of magnitude more descendants than white Americans can only be the result of biological differences in sexual behaviour (e.g., in fecundity, sexual activity, promiscuity, etc.). Furthermore, Rushton identifies a similar racial difference in behaviour in the United States (pointing out, for instance, that the number of out-of-wedlock births in poorer black communities is three times higher than in more affluent white ones.⁸)

Rushton then provides an evolutionary explanation for these apparent differences in sexual behaviour. Briefly, Rushton turns to evolutionary life-history theory, and to the two extremes of reproductive strategy evidenced in nature: either producing many off-spring, with minimal parental provision (known as the *r*-strategy), or producing fewer off-spring, with greater parental provision of resources and care (the *K*-strategy).

In typically provocative style, Rushton argues: “The *r* end of the scale means having more offspring, maturing earlier, having smaller brains and providing less parental care. The *K* end of the scale means having fewer offspring, maturing later, having larger brains, and providing more parental care”.⁹ Applying this *r*-*K* theory to human populations, Rushton suggests that blacks are *r*-strategists, Asians are *K*-strategists, and whites somewhere in between. He bases this conclusion on evidence that people of sub-Saharan African descent mature and reach puberty more quickly than other racial groups, have intercourse and children at an earlier age and more often, have higher rates of child neglect, and have shorter life expectancies.

The *r*-*K* theory, Rushton concludes, can help explain the observed contrast between high birth-rates in Africa and low birth-rates in Europe, or the similar contrast in birth-rates between black and white sub-populations in the United States. In Rushton’s view, therefore, the social and economic consequences of high-birth rates in black communities – poverty, overcrowding, poor health, neglect, and so on – are explicable in terms of evolved predispositions to behave in this way.

Even without Rushton’s provocative use of language, therefore, leftists would be understandably concerned at such a deterministic interpretation of human reproductive behaviour – that is, the notion that the number of children that people in different racial groups have, and the level of parental care that they provide, is somehow dictated by their genes, rather than by their socio-economic or cultural circumstances, or by their individual choices. The widespread moralistic rejection of this sort of evolutionary genetic account of human reproductive behaviour is obviously understandable – as is moral and political concern about the sort of claims that Rushton makes: such evolutionary arguments could be used (by white supremacists, say) to sustain the harmful belief that racial inequality is inevitable or eradicable, or that it truly is ‘in our genes’.

How, then, might an evolutionary-informed egalitarian respond to Rushton’s disturbing race-based claims about human reproduction and life history? For a start, an obvious counter-argument to Rushton’s hereditarian position, in which reproductive behaviour is seen as largely determined by genes, is the strong evidence of environmental (including cultural) influences on human childbearing practices. For instance, the belief that *r*- or *K*-strategies are genetically fixed is belied by the post-industrial demographic transition – in which birth rates fall as economic affluence rises – which is far too rapid to support a genetic determinist account: as a recent example, South Korea’s dramatic change from high to low birth-rates occurred

largely within a single human generation (i.e., with no time for major genetic changes within the Korean population).

Furthermore, as behavioural ecologist Sarah Hrdy argues (and in line with the theory of differential parental investment), it is more in males' interests to have large numbers of offspring than females'; if given a choice, women everywhere opt to have fewer 'high quality' children, regardless of race.¹⁰ Rushton's preoccupation with race overlooks this important (and much deeper and more universal) aspect of human reproduction – the disjunct between the optimal reproductive strategies of females and males.

A more sophisticated evolutionary analysis of differences in reproductive behaviour between populations, therefore, would have to take account of the power dynamics between males and females. From this more nuanced perspective, different reproductive rates in different societies could be seen, at least in part, as a causal correlate of the different levels of political power that women have, irrespective of race: in more sexually equal societies, for instance, where women have more control over their reproductive behaviour, birth rates are likely to reflect the evolved female tendency towards fewer offspring; in more sexually unequal societies, by contrast, where men can more readily control women's behaviour, birth rates are likely to reflect the evolved male tendency towards having more offspring.

According to Hrdy, (and discussed earlier, in Chapter 8), while there are indeed evolved instincts regarding sexual behaviour and parenting, these instincts allow for a range of behaviours as a flexible response to environmental cues, including prevailing cultural attitudes (which in traditional societies, where men remain politically dominant, are more likely to reflect the interests of males). Thus, while the kind of evolutionary argument promoted by Rushton emphasises relative fixity of behaviour, that presented by the likes of Hrdy highlights the malleability of evolved behaviours, depending on socio-cultural conditions. Similarly, where Rushton focuses on supposed racial differences to explain disparities in birth rates, a more nuanced evolutionary account would also highlight cultural beliefs and attitudes (albeit that these, too, could be influenced by evolved psychological predispositions).

In respect of the prevailing socio-cultural environment, Darwinian pragmatists could also present a much more balanced account of human life-history theory than that presented by Rushton – a nuanced account, moreover, that could perhaps help ameliorate (rather than exacerbate) racial inequality.

For instance, the *r-K* theory upon which Rushton bases much of his argument is an aspect of the wider evolutionary principle of optimality – the idea that natural selection will opt for an optimal or 'best fit' solution to the conflicting and irreconcilable demands placed on organisms to survive, to grow and develop, and to reproduce within a given environment. In effect, because evolution's ultimate selective criteria is behaviour that best ensures future descendants (rather than behaviour that best ensures the well-being of an individual organism), a trade-off must be made in the allocation of currently available resources. Would these resources be better devoted to survival (i.e., living longer)? Or to further growth and development? Or to speedy reproduction (i.e., having offspring)?

The principle of optimality, therefore, encompasses *r-K* theory: in adverse conditions, for instance, in which the prospects of individuals' long-term survival or development are limited, the optimal behaviour may be to rapidly reproduce (i.e., to ensure that at least *some* descendants continue into the next generation); conversely, in favourable conditions, in which survival and development are more assured, delaying or limiting reproduction could instead be the optimal behavioural strategy

(e.g., by investing more care in fewer offspring, who in turn will have a higher potential for future reproduction).

If applied to human beings, therefore, and in contrast to Rushton's emphasis on supposed racial differences in *r*-like or *K*-like behaviour, observed variation in human rates of reproduction (e.g., having large numbers of low quality off-spring or having small numbers of high quality off-spring) could be seen as *contingent* responses to environmental conditions, which include people's socio-economic circumstances.

Indeed, a more nuanced approach to optimality theory, in which environmental influences are emphasised, may provide a more balanced and more revealing evolutionary account of social inequality than that provided by the likes of Rushton. For instance, contra Rushton's argument that 'race' determines whether an *r*- or *K*-strategy is followed, epidemiologists James Chisholm and Victoria Burbank instead apply evolutionary reasoning to highlight the important role that environmental conditions have on *universal* human behaviour. They argue:

In risky or uncertain environments ... parents often lack the capability – the material or social capital – to make much difference in offspring reproductive value (health, nutrition, safety, education, etc.) Throughout evolution the optimal reproductive strategy under such conditions would generally have been the short-term strategy of maximizing current reproduction, for by maximizing the probability of having *some* offspring who survived and reproduced, organisms minimized the probability of lineage extinction.¹¹

Chisholm & Burbank go on to indicate some of the political implications of this sort of evolutionary account of human behaviour – for example, that “contrary to a great deal of popular wisdom, under risky and uncertain conditions producing offspring at an early age and/or a high rate, and investing minimally in each one, *can* be the optimal reproductive strategy”.¹² Importantly, they also indicate some of the social consequences of these evolved human tendencies and, especially, of the deleterious impact such behaviour may have on the poor (i.e., those most of concern to egalitarians): that the cost of adopting the optimal reproductive strategy in an insecure environment “may be shocking ill health and shortened lives, for both parents and offspring”.

[If people] find themselves in risky and uncertain environments that threaten their capacity to continue – to leave any descendants at all – we should not be surprised to find that their limited resources are not always allocated to improving their health, wealth, happiness, lifespan, vigour and so forth, or even that of their children. ... [W]hen people lack the material or social capital to limit risk and uncertainty or to make a difference in their children's reproductive value, their optimal reproductive strategy will often be to maximize current reproduction – even at the cost of ill health, despair and shortened lives.¹³

In contrast to Rushton's genetic determinist interpretation of biological life-history theory, therefore, a more sophisticated analysis would suggest that possible evolved influences on human behaviour are themselves contingent on environmental cues. Furthermore, many of the features that Rushton attributes solely to genetic differences between races – earlier maturity, puberty, intercourse and pregnancy, or

shortened life expectancy – could instead be attributed to universal human responses to prevailing conditions.¹⁴

In the same way, an environmentally-sensitive Darwinian perspective on human sexual behaviour seems better able to account for the change from an *r*- to a *K*- reproductive strategy during the demographic transition. For example, in the 19th century industrial cities described in Friedrich Engels' *The condition of the working class in England*, birth rates were high and life expectancy low; optimality theory helps explain why this *r*-type reproductive strategy moved towards a *K*-strategy as urban conditions improved (as, indeed, it did in other developed countries worldwide), and how this change could occur over a timescale that, in evolutionary terms, is instantaneous. Furthermore, as with the similar transition witnessed more recently in South Korea, this change in reproductive behaviour occurred within a racially-homogenous population – further undermining Rushton's claim that biological race is the main determinant of human reproductive behaviour.

The typical leftist distrust of evolutionary biological approaches to inequality, therefore, could be focussing on the wrong issue. That is, because much inequality overlaps with folk racial categories (e.g., 'black' or 'white'), leftists may assume that evolutionary genetic analysis will result *only* in the unwelcome conclusion that inequalities are biologically fixed – hence the desire to curtail such genetic analysis. However, a more complete evolutionary perspective, such as that presented by Chisholm & Burbank, suggests that 'race' is a red herring, and that it is the poor environments in which marginalised peoples find themselves that is a major cause of on-going poverty and inequality – a conclusion that matches the traditional leftist argument that environment matters.

In short, by dismissing all evolutionary accounts of human behaviour, leftists may also be ignoring strong evidence that supports their own egalitarian arguments for social change; as with the gout example in the previous chapter, biological perspectives on human behaviour can actually highlight the importance of environment and thus the need to improve social conditions.

A further example of *apparent* racial differences in social outcomes, that of differences in rates of solo-motherhood between racial groups, can further illustrate the argument that an evolutionary perspective on our behaviour could be used to further the egalitarian cause. Here again, I emphasise how taking account of gene-environment interaction may provide egalitarians with a better understanding of the causes of social inequalities.

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In the sort of evolutionary analysis advocated by Rushton, the high rates of solo-motherhood (and consequent high levels of poverty and social dysfunction) in poor black communities in the United States would be attributed to racial genotypes – that, say, African Americans are biologically more fecund and promiscuous, and less likely to form stable relationships, than members of other racial groups. By way of contrast, Hispanic Americans, despite experiencing similar socio-economic hardships, do not face the same problems of out-of-wedlock children and lack of paternal support as their black peers.¹⁵

Here, however, it is worth noting the analysis of sexual behaviour in black and Hispanic communities provided by political scientist James Flynn. According to Flynn, many of the relevant differences between these two communities (especially as regards illegitimate children) are due to the fact that there are only six males for every

10 females in poorer black communities.¹⁶ This is due to more black males being in prison, victims of homicide, or otherwise removed from the pool of eligible partners. As Flynn colourfully puts it, black males in many American cities are “in clover”, at least in a sexual sense, with a choice of female partners and little incentive to commit to any one of them.¹⁷ Many poor black women are left with a choice between giving up on any hope of a relationship and children, on the one hand, and risking unreciprocated commitments and possible solo-motherhood, on the other. Thus, in Flynn’s scenario, the amenability of African American women for sex without commitment appears predicated on the behaviour of African American men, which in turn hinges on a sex ratio imbalance itself caused by social factors.

Flynn then contrasts the situation of poor black women in the USA with that of poor Hispanic women; in the latter case, the sex ratios of Hispanic men and women are more nearly equal, and women have more choice of partners. In respect of child-rearing, then, Hispanic women have more ability to reject potential ‘fly-by-night’ men in favour of those more willing to commit themselves to supporting a family; solo motherhood is, consequently, less of a social problem in Hispanic communities.¹⁸

The relevant point here is that, while Flynn’s is primarily an environmentalist explanation for differences in behaviour and outcomes, it is compatible with Darwinian understanding of male and female sexual behaviour. In particular, Flynn’s analysis of sexual and reproductive behaviour reflects a key assumption in modern ETOHN: that males and females are likely to differ in ways that best ensure the reproductive prospects of each sex (i.e., that males are likely more predisposed towards quantity of sexual partners, while females tend more towards quality of sexual partner).

From a Darwinian perspective, the differences in sexual behaviour in black and Hispanic communities appear to reflect the relative political power of men and women. In black communities, where the gender imbalance favours men, male sexual preferences (i.e., more sex with less commitment) come to the fore; in Hispanic communities, where women have more choice, female sexual preferences (especially for greater male commitment) are more likely to prevail.

As in the earlier discussion, therefore, Rushton’s race-based analysis of sexual behaviour in black communities overlooks this basic premise of modern ETOHN – it assumes that black men and women are more similar to each other than they are to men and women of different racial groups. A more plausible evolutionary perspective is that the sexual behaviour of women in general is more likely to be similar to that of other women, irrespective of race; the same would also be true for men. Thus, even if levels of sexual activeness/permisiveness differed to some extent between races, this would be relative to the respective sexes. Thus, *even if* black males were more sexually active than non-black males, or black females were more sexually permissive than non-black females, the crucial issue would still be male/female power dynamics. A more rounded Darwinian account, therefore, would predict fewer solo mothers (and consequently less socio-economic hardship) in black communities if the male/female sex ratio was more like that of Hispanic communities.

Furthermore, and in direct contrast to the leftist assumption that evolutionary approaches to society are inherently conservative or right-wing, a pragmatic Darwinian perspective on human behaviour could be used to challenge widely-held conservative beliefs about the observed correlations between solo-motherhood and poor social outcomes. For example, many political conservatives advocate reducing social welfare, in the belief that such payments provide a perverse incentive to “breed for business” (to quote New Zealand’s conservative Prime Minister, John Key¹⁹). The

evolutionary analysis provided above, however, would suggest that any such reduction in welfare may have the opposite effect; i.e., that it is pre-existing economic and social circumstances that potentially provide an ‘incentive’ to have out-of-wedlock children, with any further deterioration in these circumstances likely only to exacerbate this situation. This evolutionary argument, then, is compatible with egalitarian beliefs about redistributive social policies.

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According to anthropologist George Gill, “the politically correct ‘race denial’ perspective in society as a whole suppresses dialogue, allowing ignorance to replace knowledge and suspicion to replace familiarity. This encourages ethnocentrism and racism more than it discourages it”²⁰

Evolutionary-informed egalitarians, by contrast, could be open to further research into the relationship between evolved behaviours and social outcomes, while avoiding leftists’ standard knee-jerk rejection of *any* suggestion of evolved genetic influences. Similarly, such informed egalitarians could engage in debate rather than trying to suppress it.

Darwinian reasoning, or the application of evolutionary theory to human behaviour, does not inevitably lead to political conclusions that are more compatible with the right than with the left. If we genuinely wish to reduce social inequality, then egalitarians must understand its causes, both environmental and genetic. In the case of reproductive behaviour, for example, if possible biological influences are contingent on social circumstances, and if poor environmental circumstances result in poor outcomes, then the egalitarian imperative remains the same: improve the environment, but do so in a way that is informed by, and able to respond to, all relevant sources of information.

Can there be a more important subject than human nature? If the subject can be truly fathomed, then our species will be more precisely defined, and our actions perhaps more wisely guided.

Edward O. Wilson, *On Human Nature*

Chapter 12: Status For What?

Singer's ideas about how a better understanding of our evolved nature may help us create a more cooperative society should resonate with many on the egalitarian left. Unfortunately, ill-informed or mistaken beliefs about what *must* follow from a Darwinian perspective on human behaviour are a major obstacle to egalitarians paying heed to Singer's argument. If this stumbling block can be removed – if, for example, the left accepted that the facts of our evolved nature do not determine our political ideals, or that Darwinian reasoning does not inevitably lead to sexist or racist beliefs – then modern ETOHN could, as Singer claims at the very beginning of *A Darwinian Left*, become a source of new ideas and new approaches to bringing about a better and more equal society.

Among Singer's key claims is that an evolutionary-informed appreciation of human nature – both our evolved selfless and cooperative traits *and* our self-interested and competitive ones – could provide the left with a more effective means to critique modern consumer capitalist society. To accept that human nature is often self-serving is not to condone selfish behaviour; to understand why humans often behave selfishly to the detriment of others, however, is to better arm ourselves to do something about. Indeed, evolutionary insights may indicate why such behaviour is itself often detrimental to the wellbeing of self-serving individuals themselves.

In this chapter, I assess and extend Singer's Darwinian critique of modern competitive society. I begin with Singer's acknowledgement that capitalism exploits certain of our evolved traits (especially our competitiveness and status seeking) in ways that do provide wider social benefit, and his claim that capitalism also downplays and obscures other important aspects of meaningful human existence, such as the desire for happiness and meaningful social interaction. I develop Singer's argument by exploring, from a Darwinian perspective, how the seemingly mindless pursuit of wealth evident in modern societies could have come about. I suggest that a deeper appreciation of why we are motivated to act in this manner may provide us with the means to rationally reflect on whether this is indeed a worthwhile way to lead our lives.

I then examine and develop Singer's related criticisms of the type of socially unequal capitalist society epitomised by modern America, and, in particular, the fact that, beyond a certain point, rising levels of affluence do not correlate with increasing happiness. Here, I turn to the work of evolutionary psychologist Geoffrey Miller to demonstrate how a Darwinian perspective on human behaviour can actually complement traditional leftist beliefs about the disadvantages of social competition and the value of social inclusion and cooperation.

Next, I turn to Singer's suggestions about how we could further promote human beings' evolved altruistic predispositions in ways that bring benefit to wider society. I conclude the chapter with the argument first raised in Chapter 7: that human beings have evolved to a point where, uniquely in the natural world, we can reflect upon the evolved constraints on our behaviour. I suggest that Singer is correct in arguing that this ability could allow us to reason our way to a new form of freedom.

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In asking how egalitarian reformers can learn from Darwin, Singer argues that we must understand our inherent tendencies, and modify our political plans in order to suit them. Singer accepts that there are different ways of working with our evolved predispositions, some of which may go against the left's traditional (abstract) beliefs about how society should be organised. The traditional left has often argued, for example, for a centrally planned economy on the grounds that "[i]n theory – abstract theory that is, without any assumptions about human nature – a state monopoly should be able to provide the cheapest and the most efficient utility services or transport services or, for that matter, bread supply, because such a monopoly would have enormous advantages of scale, and would not have to make profits for its owners".¹

If we take our evolved self-interested tendencies into account, however, the flaws in this abstract model become apparent; as Singer indicates, because the economic interests of a community enterprise do not necessarily coincide with those of its managers, the result can be inefficiency, corruption and theft.² One way to make such an enterprise more efficient, Singer argues, could be to privatize it, and to reward managers in relation to their performance, based on the underlying (capitalist) assumption "that human beings can be relied upon to work hard and show initiative only if by doing so they will further their own economic interests".³

In contrast to the left's traditional support for a rationally planned 'altruistic' economy, the economic model that seems most in keeping with evolved human tendencies is that famously proposed by philosopher Adam Smith, in which "the self-interested desires of a multitude of individuals are drawn together, as if by a hidden hand, to work for the benefit of all".⁴

Here, Singer appears to be moving in the direction that he earlier decries in modern mainstream leftist parties; of acceding to the capitalist belief that society should be organized on the basis of competitive and self-interested behaviour. However, this is not Singer's ultimate argument. While he accepts that Smith's 'invisible hand' has worked *better* than leftist alternatives (such as the failed communist experiments), this does not therefore imply that unfettered capitalism is the *best* means of organising an economy. As Singer is quick to point out, while an economy that provides incentives for personal gain "is one way of tailoring our institutions to human nature, or at least to one view of human nature ... *it is not the only way of doing so*".⁵

In some circumstances, such as ensuring that public institutions function as efficiently as possible, channeling our evolved self-interested behaviour in ways that benefit wider society may be appropriate; in other circumstances, such as broader attempts to create a more cohesive or harmonious society, emphasizing these same self-serving tendencies may be entirely inappropriate.

Singer draws attention to the way in which those in capitalist countries all too often equate self-interest solely with monetary wealth, or interpret it solely in materialist terms. In Singer's view, this is a mistake because wider self-interest does not equate solely with economic self-interest – as the trite aphorism 'money can't buy happiness' implies, for instance, being happy is often more in our interests than being rich: "Most people want their lives to be happy, fulfilling, or meaningful in some way, and they recognize that money is, at best a means to achieving part of these needs."⁶

Thus, while capitalists are correct to identify some self-interested tendencies as intrinsic to human beings (and the left wrong to deny these traits), focusing exclusively on this aspect of our behaviour can obscure other *more* important facets of

our nature. Singer therefore challenges the idea that political policies should focus primarily on facilitating the individual pursuit of wealth, and that such policies could instead “appeal to the widespread need to feel wanted, or useful, or to belong to a community – all things that are more likely to come from cooperating with others than from competing with them.”⁷

Although these traits – the need to ‘feel wanted’ or ‘feel useful’, or the desire ‘to belong’ – could appear trite or woolly, they are, as Singer emphasises, likely to be as much a part of universal human nature as our self-interested desire for wealth. Importantly, Singer’s evolutionary-informed view of human nature is not only more convincing than that normally offered by the left, it is also more complete than the one-dimensional view often presented by the capitalist right. Accepting that *some* of our traits may indeed be self-serving would not require the left to abandon its challenge to capitalist beliefs about the primacy of human self-interest, and egalitarians could still champion the socialist vision of a more harmonious and cooperative society. This, in turn, could allow for a more pragmatic approach to social change than that traditionally advocated by the left.

For instance, a more pragmatic left could accept, as Singer does, that directing “our acquisitive and competitive desires so that they work for the good of all” can result in genuine benefits. The proof of this is evident, say, in comparisons between capitalist Western Europe and communist Eastern Europe in the decades following World War 2. Nevertheless, despite this evidence of capitalism’s success in raising living standards, say, this is not to claim that there is no better alternative to the current capitalist system. As Singer points out, “even when the competitive consumer society works at its best, it is not the only way of harmonizing our nature and the common good” – in his view, evolutionary-informed egalitarians should instead “encourage a broader sense of our interests, in which we seek to build on the social and cooperative side of our nature, in addition to the individualistic and competitive side”.⁸

Unfortunately, by continuing to reject the notion of a fixed human nature, the idealistic left concedes the argument to the capitalist right, who can (quite rightly) claim to have a better appreciation of human behaviour. An additional advantage of Singer’s more realistic Darwinian left, therefore, is in revealing the limitations of the capitalist vision of human nature, and the way in which it neglects other important aspects of our nature – most especially our evolved desire to be valued members of a social group.

Singer himself does not provide an explicit evolutionary analysis to support his political point; rather, he merely suggests that pro-social tendencies are as inherent in our nature as individualistic ones, and that the left should encourage the former without overlooking the latter. In order to illustrate how egalitarians could perhaps incorporate Darwinian ideas in their political arguments, therefore, it is here worthwhile to provide a brief evolutionary gloss on human attitudes towards ‘money’ and ‘happiness’.

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According to Singer, “there is no reason to assume that earning more than a modest amount of money will maximize the number of descendants we leave”.⁹ In other words, even if we accept that our evolved patterns of behaviour are ultimately designed to ensure the future survival of our genes, we still cannot identify (genetic) self-interest with the wealth that we accrue; despite our evolved selfish desires for

wealth, accumulating more and more money beyond a certain limit serves no evolutionary purpose.

Here, Singer seems to be taking aim at the fallacious belief that because a behaviour (such as the self-interested pursuit of wealth) *is* a feature of our nature, it *should* therefore be encouraged or promoted. While Singer does not pursue this point, it is illuminating to ask how our desire to accrue wealth might be further explained from an evolutionary perspective.

A plausible evolutionary account can easily be constructed. For instance, in our species' ancestral environment, accruing resources (such as food) *could* have maximized the number of descendants that individual humans left (e.g., if food were traded for sex). ('Meat-trading' in early hominid groups, for instance, has been proposed as a possible origin of human sharing behaviours, which are highly developed in comparison with those of our primate relatives.¹⁰) If this were indeed the case, those individuals who acquired more resources would have had more offspring, who would also have inherited this tendency. Our present-day desire to accumulate wealth is, therefore, plausibly due in part to the self-interested 'resource-accruing' behaviours that were naturally selected amongst our ancestors.

However, in our ancestral hunter-gatherer environment, most of the available 'wealth' was not portable or was not permanent (e.g., food spoils rapidly, and over-many possessions are not easily carried); thus only a 'modest' amount of resources could have been accrued by any one individual. In modern settled societies, however, where resources (i.e., monetary riches) are both portable and permanent, 'immodest' amounts of wealth can be acquired, regardless of whether this directly leads to a maximization of descendants. If such evolutionary reasoning is on the right track, then our evolved desire to acquire resources may have become increasingly disconnected from its evolutionary *raison d'être*, and behaviour that was 'rational' (from natural selection's perspective) is now no longer so.

This argument can then be developed in a political direction – for it provides us with a means to critically reflect on our inherent materialism. Rather than treating this behaviour as something that humans just 'naturally' do, we can, with this evolutionary back-story in mind, examine it more rationally, and ask whether that behaviour is appropriate or sensible, or whether it is the best way to lead fulfilling lives. And while this approach is not wholly dependent on evolutionary theory, by understanding our behaviour from the perspective of our evolved psychology, we may be better able to control it, or to direct it in more rationally desirable ways. An evolutionary account of this behaviour can thereby potentially provide egalitarians with a much stronger argument against the unthinking pursuit of money than the usual vague or woolly suggestions, often spouted by the idealistic left, that wealth is in some way 'wrong' or 'immoral'.

Any such evolutionary account of *why* we have the tendencies we do could then be further developed by Darwinian-minded egalitarians. For example, accruing resources would not have been the only means to maximize descendants in our species' ancestral past. As an ultra-social animal, we are heavily reliant on our conspecifics for our survival and well-being. In addition to the ability to acquire resources, therefore, the capacity to form strong social bonds and cooperative relationships would also have been vital – not only to an individual's survival, but also to that individual's prospects of reproduction. Thus, human beings' deep desires to be trusted and valuable members of a social group are likely to be every bit as much an evolved aspect of our psychology as our more self-serving tendencies.

As rational beings, we are able to consider which behaviours are more or less likely to ultimately achieve a desired goal. If we wish for some ultimate state of happiness or fulfillment, then egalitarians can argue that encouraging our *other*-orientated behaviours rather than our *self*-orientated ones may make us more likely to succeed in this goal.

Of course, this is merely adding detail to the general claim that Singer makes about how both selfishness and selflessness are features of human nature. However, by adding this detail, we can better illuminate how present-day consumer societies (and contemporary free market ideologies) fixate on satisfying limited facets of our nature, to the detriment of other crucial traits. Armed with a more comprehensive appreciation of our evolved behaviour, therefore, egalitarians could welcome the genuine benefits of the capitalist system (compared to *existing* alternatives) while emphasizing how this model fails to satisfy our pro-social desires.¹¹

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How then could a Darwinian left go about ‘building a more cooperative society’ (the sub-title of *A Darwinian Left*’s Chapter 3)? According to Singer, all human societies will display some competitive tendencies and some cooperative ones, and while we cannot change this “we may be able to change the balance between these two elements.”¹² The sort of competitive society that Singer has in mind is that epitomised by 20th century America, “in which the drive for personal wealth and to get to the top is widely seen as the goal of everything we do”.¹³

However, while Singer presents modern America as the model of an undesirable competitive society, he does not offer a clear illustration of a more desirable cooperative alternative; rather, his focus is primarily on the downsides of the sort of competitive society that America represents. Much of Singer’s argument, therefore, relates to how an evolutionary-informed left could mitigate the unwelcome aspects of competitive social organisation. The purpose of Singer’s nascent Darwinian left is not, as so often the case with utopian leftist theories, to come up with an abstract plan of an ideal future society; instead, he wishes to provide informed suggestions of how to move the existing competitive social model in a more cooperative direction.

In this respect, one of the main deficiencies of the modern competitive society identified by Singer is the widening gap between the rich and the poor, and the correlated reduction in support for those at the bottom of the social hierarchy.¹⁴ According to Singer, and despite the fact that the free market has boosted average prosperity in the developed world, the greater affluence of the middle and upper classes must be measured against the increasing misery of the very poor. Here, Singer highlights the lack of correlation between an increase in wealth and an increase in happiness, once basic needs are met – a finding that again suggests that the competitive society fails to provide for other intrinsic human desires, despite the rise in material affluence.

In Singer’s view, the extreme of competitive self-interest is captured in the sentiment expressed “by the Wall Street entrepreneur Ivan Boesky (the putative model for Gordon Gekko in Oliver Stone’s film *Wall Street*): ‘He who has the most toys when he dies, wins’.”¹⁵ The ultimate futility of this way of thinking is obvious, and, as Singer goes on to argue, it does not take much reflection to realise that a society whose citizens are motivated primarily by the desire to have more than others (or, rather, by the fear of having less) is unlikely to be a society in which people are

happy or fulfilled. Despite rising material affluence, therefore, social competition carries a cost; and while those at the bottom of the social hierarchy may suffer more directly and more obviously, even those further up the scale experience the ill-effects of the lack of social cohesion and cooperation: “One cannot live a rich private life in a state of siege, mistrusting all strangers and turning one’s home into an armed camp”.¹⁶

Again, this is not an original argument, with social commentators having reached similar conclusions for millennia (e.g., the Bible’s admonition that ‘the love of money is the root of all evil’). The originality of Singer’s approach, especially as a leftist, is in trying to provide a credible scientific account of these evident human tendencies, and in indicating how such an account may inform our political response to the consequences of these tendencies.

Singer himself does not appeal directly to specific evolutionary ideas to back up his argument; rather, he bases his thesis on the implicit assumption that we have evolved tendencies towards competition, and that modern competitive societies are geared towards satisfying these traits, often at the expense of other, more pro-social ones. It is thus worthwhile here to briefly assess some of the Darwinian theories that are compatible with Singer’s approach – as, for instance, with the evolved predispositions to accrue resources discussed above.

In this case, aspects of evolved human psychology suggest that males (in particular) may act in a Boesky/Gekko-type way because, in an ancestral past, this behaviour likely paid reproductive dividends. (As science writer Matt Ridley suggests, “it’s possible that men still walk around with a relatively simple equation in their brains, namely that relative success at obtaining assets results in more sexual adventures and more grandchildren”.¹⁷) In a modern environment, however, in which the manic accumulation of material wealth no longer correlates with reproductive fitness, the ultimate futility of this behaviour (i.e., ‘dying with the most toys’) is further illuminated.

To provide a concrete example, I will briefly turn to former All Black captain Sean Fitzpatrick (catchphrase: “Show me a good loser and I’ll show you a loser”), whose tellingly-entitled autobiography *Winning Matters* (2011) appears to epitomise the undesirable competitive behaviour that Singer most wishes to challenge. To the likes of Fitzpatrick, for instance, ‘being the best you can be’ (his self-help manual’s sub-title) includes putting career aspirations ahead of other relationships, such as family life. Here, Fitzpatrick reflects the more typically male aspects of the human psyche discussed in Chapter 8 – most especially, the apparent evolved psychological motivations to sacrifice everything for the sake of getting to the top.¹⁸

If modern competitive society is grounded, at least to some extent, in the more male-like attitudes epitomised by Sean Fitzpatrick, how could the left exploit this fact to attain more egalitarian ends? For a start, social status is likely particularly salient in our minds because, as ultra-social animals, position in the social hierarchy was hugely important to survival and reproduction for ancestral humans, and we possibly cannot help but assign significance to striving and ambition for status, or, in a modern context, to ascribe importance to the symbols of social ‘success’ – the top-floor office, the imposing title, the brand-new car or the massive house. This perhaps helps explain why modern competitive societies so often relate status to consumption and media interest. Yet, as Singer points out: “In such a society there is little connection between status and the benefits one brings to others.”¹⁹

Darwinian thinking, therefore, could provide a ‘reality check’ on the apparent tendency to mindlessly accept consumer society’s values and outlooks, and it could offer a more objective perspective on whether driving ambition and status-seeking

really is the best means to a flourishing life. As Singer succinctly asks about our desire for status: “Status for what?”²⁰ Just so that we can die with more toys than anyone else?

Furthermore, if status is measured chiefly in terms of ‘success’ in competition, then the only way to succeed is to be competitive – and the question of whether this behaviour is of any ultimate worth is thereby obscured. Seen through the Darwinian lens, however, the absurdity of some of our behaviour becomes glaringly apparent: as evolutionary psychologist Steven Pinker points out in relation to male status seeking, “the glory that men seek may be a figment of their primate imaginations – the symptom of a chemical in their bloodstream, the acting out of instincts that make us laugh when we see them in roosters and baboons”.²¹

Of course, criticisms of hierarchical status displays, and the social inequalities with which they are inevitably entwined, have a long history with the left – e.g., Marx’s ‘commodity fetishism’ or the ‘conspicuous consumption’ and ‘conspicuous waste’ highlighted in sociologist Thorstein Veblen’s *Theory of the Leisure Class*. Indeed, condemnation of rampant consumerism or of the competitive rat race is a stereotypical mark of membership of the modern liberal left. But standard leftist counter arguments to consumerism, that we should all just learn to cooperate, say, or to ratchet down our consumption, are easy to mock in face of the perceived ‘realities’ of day-to-day human social behaviour.

A Darwinian perspective on existing competitive society, therefore, adds grist to the left’s mill by exposing the rooster-like or baboon-like nature of this social behaviour. Do the (invariably male) leaders of industry really ‘deserve’ to be paid so much more than those further down the status hierarchy whose vital social role goes unnoticed? Are the ‘baubles of office’ that our (predominantly male) leaders so eagerly covet – the limousines, luxury hotels, lavish banquets – really necessary to the efficient and effective running of a country or a company? Or are they simply the ludicrously exaggerated ‘status displays’ of a large-brained but not particularly insightful hairless ape?

In contrast to the typical leftist belief that ETOHN merely bolster arguments for the social status quo, Darwinian reasoning can actually complement traditional leftist criticisms of inequality and competition. Informed Darwinian leftists would thus be better able to argue the case for promoting cooperative social behaviour and more intrinsically worthwhile outcomes (e.g., strengthening the social relationships that human beings inherently value).

An evolutionary approach to human status-seeking and unreflective consumption could also place leftist criticisms of competitive behaviour on a firmer psychological foundation. For example, the self-serving actions of a CEO who awards himself a massive salary increase would be explained by many on the traditional left in terms of an ill-defined ‘culture of greed’; from a Darwinian left perspective, however, it could also be explained as a predictable result of human (and particularly male) psychology. (This evolutionary analysis, moreover, bursts the inflated sense of self-importance displayed by many of those at the top of the social hierarchy.)

Accepting that competitive behaviour may be a stable aspect of our evolved nature is not to accept that certain social outcomes (e.g., social competition or the sexual division of labour) are similarly fixed or inevitable. Rather, an understanding of evolved inclinations, such as the male desire for status, may provide us with valuable information on how to channel competitive tendencies towards more socially beneficial ends.

For example, in consumer capitalist societies, status (and thus an individual's social 'value') is normally indicated through material possessions, and the standard way to acquire these trappings of success is to work long hours to earn the money to buy them. Our competitive tendencies are thus targeted on the material gains. Interestingly, however, Sean Fitzpatrick himself provides an example of why the *material* focus of status-seeking may be more arbitrary than we might realise: for uber-competitive males like Fitzpatrick, winning often matters more than what is won – else why waste time striving to win pointless rugby matches?

This indicates the potential fluidity of the markers of status: our current society grants status to those, such as Microsoft founder Bill Gates, who are more successful in climbing competitive hierarchies. But Bill Gates himself, propelled by the same tendencies as earlier high-status males, is now 'competing' to become the world's top philanthropist. Gates' lasting legacy, therefore, may not be so much accounted in 'selfish' genetic terms (as it was with his male forbears) but rather in the millions of fellow humans saved from diseases, such as malaria, that the Bill and Melissa Gates Foundation is striving to eradicate. The point is that, in the modern world, our evolved tendencies towards acquiring resources and status (ultimately designed to secure our genetic stake in the future) can also be turned towards more socially beneficial goals.

Indeed, this is a line of reasoning developed by evolutionary psychologist Geoffrey Miller, whose more scientifically-informed accounts of evolved human behaviour lend considerable weight to Singer's less biologically nuanced philosophical position. For example, Miller begins his recent book *Spent: Sex, evolution, and consumer behavior* with a question designed to humorously shock the reader into contemplating the absurdity of much of our modern consumer behaviour: "Why would the world's most intelligent primate buy a Hummer H1 Alpha sport-utility vehicle for \$139, 771?" – especially as, according to Miller, it is such a poorly designed vehicle.²²

Miller himself provides a straightforward evolutionary answer to why "we keep ourselves on the consumerist treadmill – working, buying, aspiring":

Humans evolved in small social groups in which image and status were all-important, not only for survival, but for attracting mates, impressing friends, and rearing children. ... Our vast social-primate brains evolved to pursue one central social goal: to look good in the eyes of others. Buying impressive products in a money-based economy is just the most recent way to fulfil that goal.²³

However, Miller is not attempting to justify this behaviour; rather, he is using Darwinian theory to explain it. Like Singer, Miller argues that if we can understand why we behave in certain ways, this may provide us with the means to counteract or overcome the negative consequences of some of our behaviour, if that is what we decide to do. And Miller's conclusions – informed by research into the evolutionary origins of human psychology and behaviour – are compatible with Singer's prescriptions for a Darwinian left.

For instance, in concluding *Spent*, Miller argues that, in modern capitalist societies, human beings' 'wondrously adaptive' creative capacities are now wasted on mindless material consumption:

This is an absurd way to live, but it's never too late to come away from it. We can find better ways to combine the best features of prehistoric human life and modern life. Eco-communo-primitivism offers little more than squalor, ignorance, and boredom. Runaway consumerism alone offers little more than narcissism, exhaustion, and alienation. We need the freedom to explore different ways of displaying our traits to the people we care about.²⁴

Miller's evolutionary argument, then, aligns closely with that of Singer. True, competitive consumer society is an expression of aspects of evolved human behaviour. But in promoting only these aspects of our behaviour, this sort of society does not satisfy the full range of evolved human needs and desires. Further, in both Miller's and Singer's view, only by accepting and understanding the evolutionary basis of our behaviour will we be able to change it. Indeed, *Spent's* concluding comments readily match Singer's desire to shift the balance of inherent human behaviour away from competition towards cooperation: "Humans may never give up their drives for status, respect, prestige, sexual attractiveness, and social popularity, but these traits can be channelled to yield a much higher quality of life than runaway consumerism offers."²⁵

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Singer's more abstract political argument appears compatible with other, more scientifically-grounded interpretations of behaviour in contemporary capitalist societies. How, then, does Singer himself propose to harness Darwinian thinking to "build a society that is cooperative and offers a strong safety net for those unable to meet their own needs"?²⁶

To begin with, Singer highlights the fact that, even in the most unpromising circumstances, human beings are readily able to recognize the benefits of cooperation. For instance, in the trench warfare of World War 1, opposing soldiers "developed the extraordinary system known as 'live and let live'", in which, despite the orders of their superiors, both sides' troops deliberately avoided killing each other.²⁷ This illustrates how adept our species is at making inferences about others' behaviour (e.g., in inferring, in the 'live and let live' scenario, that 'if we don't shoot at them, they won't shoot at us'); furthermore, we are particularly good at recognizing social contracts and at identifying those who violate them.

By exploring how these traits have evolved, Singer argues, we will better understand "the conditions in which cooperation can flourish" – an informed approach that could be the starting point "for the development of a field of social research that shows the way to a more cooperative society".²⁸

Singer develops this argument by turning to evolutionary game theory, and to the concept of a 'prisoner's dilemma' (so called due to its original depiction as two prisoners, each given the choice of giving evidence against the other in order to reduce their own sentence). The dilemma arises because of the various pay offs and costs of either individual 'defecting' – i.e., informing on the other prisoner – or of staying silent: each is best off if he or she defects while the other remains silent, and each is worst off by staying silent if the other defects. Unfortunately, if both prisoners defect then they each receive a longer sentence than if both had stayed silent. In short, while each is *individually* better off if he or she defects (as long as the other does not), they are *both* better off by remaining silent – i.e., cooperating.

Singer uses the prisoner's dilemma to illustrate how the rational and self-interested choices of individuals can end up making everyone worse off than they would have been if they had cooperated. For example, commuters would collectively be better off if they all took the bus, rather than sitting in their cars stuck in heavy traffic: "But it is not in the interests of any individual to switch to the bus because, as long as most people continue to use their cars, the buses will be even slower than the cars." Similarly with arms races: while both sides would be better off not having to spend so much on weapons, "it is not in the interests of either side to disarm while the other does not".²⁹

The point for Singer is that if people are faced with *repeated* prisoner's dilemma scenarios, they may come to realize that cooperation is the better strategy. This, indeed, reflects the finding of a famous game theory simulation, in which political scientist Robert Axelrod tested a number of different strategies to see which would produce the best pay-offs in repeated prisoner's dilemma-type situations. According to Singer:

The winner [of Axelrod's experiment] was a simple strategy called 'Tit for Tat'. It opened every encounter with a new prisoner by cooperating. After that, it simply did whatever the prisoner had done the previous time. So if the other prisoner cooperated, it cooperated, and it continued to cooperate unless the other prisoner defected. Then it defected, and continued to do so unless the other prisoner again cooperated.³⁰

In Singer's opinion, the left could use research findings such as this as the source of ideas for how to "create conditions that draw on our inherent grasp of the rules of mutually beneficial cooperation and thereby make it possible for mutually beneficial relationships to flourish where otherwise they would not".³¹ Again, his emphasis is on a realistic appreciation of what would allow cooperation to flourish *and* what would not.

One political lesson that can be drawn from game theory, for instance, is that mutually beneficial cooperative behaviour depends on repeated, long-term interaction – the very sort of interaction that is fast disappearing in large urbanized modern populations. In Singer's view, taking this into account may allow us to better design social institutions to counteract the anonymity of the increasingly urbanized societies in which the majority of modern human beings now find themselves.³²

Furthermore, Singer highlights the fact that large disparities in power or wealth also remove the incentive for mutual cooperation, especially if nothing that those at the bottom of the social scale do makes a difference to those at the top. Again, this provides an additional argument about the need to tackle the increasing inequalities in modern societies, especially because leaving those at the bottom of the social hierarchy "so far outside the social commonwealth that they have nothing to contribute to it, is to alienate them from social practices and institutions in a manner that almost ensures that they will become adversaries who pose a danger to those institutions".³³

Such arguments would be unlikely to offend most leftists. Nevertheless, a further necessary condition for the development of mutually beneficial cooperation is the ability and willingness to punish defection (as in the Tit For Tat experiment). In other words, because self-interested tendencies exist alongside cooperative ones, the temptation to defect (and gain maximum short-term rewards) will always remain.

Thus, unless there is a genuine threat of retaliation or punishment for non-cooperation, mutually beneficial relationships are unlikely to develop.

In contrast to “the more idealistic left”, who might wish for continued cooperation whatever the circumstances, Singer instead argues:

The easier it is for cheats to make a living, the more of them there are likely to be. A pre-Darwinian left would blame the existence of cheats on poverty, or lack of education, or the legacy of reactionary capitalist ways of thinking. A Darwinian left will realize that while all while these factors may make a difference to the level of cheating, the only permanent solution is to change the pay-offs so that cheats do not prosper. This means not turning the other cheek.³⁴

Singer here appears to be criticizing uncritical leftist beliefs about the efficacy of social welfare, or of the Marxist creed ‘from each according to ability, to each according to need’ – that is, the naïve assumption that if everyone has a more equitable level of income, say, then greed or self-interest will disappear, and humans will willingly contribute towards the greater collective prosperity of all.

A Darwinian perspective on human nature, one that took self-interested tendencies as a given and resisted naïve ‘good of the group’ thinking, would instead predict that any system that lacked incentives or constraints may simply maintain or reinforce deleterious behaviours. For example, a social welfare system that unconditionally guaranteed income could end up providing individuals with little incentive to improve their circumstance; thus, unless informed by a realistic appreciation of human tendencies, social welfare policies aimed at reducing poverty, say, could actually create the conditions in which poverty becomes entrenched – the ‘welfare trap’ or welfare dependency often identified by the political right.

Of course, such a conclusion about welfare (or about welfare ‘cheats’) is unlikely to find favour with the traditional left. Yet, while Singer himself does not address this issue, ‘social cheating’ is also evident amongst the affluent, for example with tax avoidance – in which case, an evolutionary-informed analysis could also highlight the need for strong deterrents to ensure that these cheats, too, do not prosper. Importantly, Singer is making the point that human cooperative tendencies can also be stymied (unintentionally) by ill-informed egalitarian policies – as, say, in the Soviet Union, where the State exploited the workers, or in cases of welfare dependency, where individuals may exploit the State (despite this being detrimental to their long-term well-being). A realistic left would realize that competition can carry benefits as well as costs, but also that cooperation itself is not cost-free.

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Darwinian thinking suggests that we are not likely to be naturally altruistic. How can a self-sacrificing trait that benefits the group at the expense of the individual survive or become established? From an evolutionary perspective, it seems that self-sacrificing tendencies would be eliminated from the gene pool no matter how much they might benefit the group in the long term.

Again, this is a conclusion that might appear unpalatable to the left; indeed, it could lead to the further conclusion that, because self-sacrificing behaviour *does* exist and because humans *are* (or can be) altruistic, this behaviour is somehow ‘inexplicable’ in Darwinian terms – hence, another source of the leftist notion that

Darwinian theory is largely irrelevant to modern human behaviour. Similarly, the more idealistically-minded left might object to evolutionary accounts of seeming altruistic behaviour on the grounds that, because such behaviour is ultimately designed to benefit the altruist's genes, it is not genuinely or 'truly' altruistic.

In respect of the first objection, an evolutionary-informed left would appreciate that modern Darwinian theory (such as the 'selfish gene' concept) is not an attempt to explain away altruism, but rather to understand how altruistic behaviour could have arisen in the first place. With this in mind, and with regard to the second objection, Singer argues that there is a difference between an individual's *motivation* for altruistic acts, and the evolutionary benefits that may accrue to that individual. For instance, a volunteer who chooses to work with disabled children, say, with the sole intention of improving their lives, is acting altruistically "in the everyday sense" even if, as a consequence of this behaviour, the volunteer becomes more attractive to the opposite sex (and hence increases his or her reproductive fitness).³⁵

The evolutionary rationale for our behaviours is often hidden from our conscious mind. With a parent's love for a child, for instance, the parental genes' 'ulterior motive' is actually to pass on copies of themselves. Yet while this might explain *why* this emotional response has evolved, it does not explain away parental love or deny that such an emotion is genuinely felt. In the same way, the conscious motivation for cooperative behaviour may be genuinely altruistic even though, from a genetic perspective, this behaviour may originally have been 'selfishly' designed to enhance our reproductive prospects.

Importantly, by understanding the evolved basis of these behaviours we can also understand the social triggers that influence them – in the case of love for a child, what social factors may enhance this tendency or, in the case of child neglect or infanticide, the social factors that may negate it. This enhanced understanding of the influences on parenting behaviour can further inform the design of appropriate institutions or social systems to bring about more flourishing family life. Similarly, the political spin that Singer places on Darwinian reasoning about altruism focuses on how altruistic behaviour might further be encouraged, or how social practices might be geared towards providing wider social benefit from our evolved altruistic tendencies.

Singer provides the example of how some Native American tribes apparently allowed young men who had vowed to fight to the death in an upcoming battle to have sex with as many willing women as they wished.³⁶ In this case, the reproductive pay-offs are transparent: while the young men may die by sacrificing themselves for the 'good of the group', their genes would live on in any children that result from the socially sanctioned pre-martial sex. Here, Singer wishes to emphasise how a social practice, which relies on an altruistic behaviour ultimately premised on genetic self-interest, can result in wider group benefit.

However, a more complex and more revealing example is perhaps provided by modern suicide attacks.³⁷ Initially, such behaviour seems inexplicable from an evolutionary perspective – especially as, unlike in the Native American example, this action does not provide compensatory reproductive opportunities. Nevertheless, to the extent that such self-sacrificing behaviour is sanctioned and approved within the suicide attackers' own community, then the extra status and resources that might accrue to his or her family could provide benefits to that individual's genes (i.e., those genes held in common amongst relatives). Suicide attacks, therefore, could be an extreme example of kin altruism – a behaviour that does not directly benefit the individual, but which ensures the success of copies of that individual's genes residing

in others. Like the Native American warriors, therefore, the self-sacrifice of suicide attackers could also be genetically ‘selfish’.³⁸

Of course, this is not a full explanation of this sort of social phenomena. Nevertheless, it does indicate that the wider social ‘benefit’ of exploiting evolved predispositions depends on the perspective you adopt. Suicide attackers’ behaviour could be seen as altruistic by members of their own group; they are unlikely to be viewed in this way by the groups they attack. Darwinian reasoning, by providing various perspectives on this sort of behaviour, may help identify how we might best avoid inter-group conflict or competition, and how we might ‘expand the circle’ of those to whom we may behave altruistically.

As these examples also show, social practices that influence particular behaviours can be either good or bad for a group, or can benefit one group at the expense of another. Singer, therefore, is surely correct to argue that understanding the possible evolved psychological influences on this type of behaviour may allow us to *rationally* direct it in desirable ways.

For instance, the traditional left wishes to change social practices by directing people’s attitudes and behaviours in certain ways. Darwinian reasoning does not undermine this: we can still rationally determine what behaviour should be rewarded and what behaviour should be punished, even if there is an evolved basis to many of our inclinations. At the same time, a Darwinian perspective on the ultimate (genetic) rationale for certain behaviours can be used to challenge conservative beliefs about the sanctity of traditional practices and customs. Singer’s (and the traditional left’s) more rational approach is to ask whether customary practices are just, or whether they result in increased happiness or wellbeing.

Singer himself offers little direct practical advice about how we can use an evolutionary-informed understanding of altruistic activity. Instead, he merely suggests that we need to understand more about what leads people to do altruistic deeds – e.g., donate blood to strangers, or, even more altruistically, bone marrow – “so that we can base social policies on a more secure foundation of knowledge about human behaviour”.³⁹ Singer then returns to less desirable aspects of human behaviour: the status seeking and conspicuous consumption prevalent in modern developed countries that provides little benefit to others. Again, he only gives vague suggestions about how we could “shift ideas of status away from conspicuous consumption, in a more socially desirable direction” – for example, by introducing a tax on consumption (say, on luxury items) as a means to change the behaviour of social high-fliers.⁴⁰

Like Singer, Geoffrey Miller also highlights the need to “switch from an income tax that promotes short-term runaway consumption to a consumption tax that promotes longer-term ethical investment, charity, social capital, and neighborly warmth”.⁴¹ Indeed, Miller’s more substantial evolutionary informed critique of modern consumer behaviour – and most especially, his belief that if we wish to design a better alternative to the developed world’s mindless and endless consumption, we must first understand why it is so appealing to humans – neatly illustrates the sort of ideas that Singer believes the left should start to explore. For instance, if we more clearly understand the way in which the marketing industry plays upon our evolved psychology to influence our behaviour, we would be better armed to challenge it, or to direct it in ways likely to provide people with more worthwhile lives.

Importantly, Miller also emphasises that, despite being based on evolved human psychology, present social arrangements and behaviours are not fixed – or rather, that it is possible to mould them in more desirable ways. Indeed, according to Miller, while current Western society is organised so that “individuals become

alienated workaholics competing to acquire consumerist indicators of their spending ability”, it is our responsibility to redesign our social institutions to reap more worthwhile social benefits from our evolved instincts:

In another possible society, individuals could compete to display their effectiveness in saving poor villages from economic stagnation and saving endangered habitats from destruction. ... [C]onspicuous charity is at least as natural as conspicuous consumption, and we are free to decide which should be more respected in our society.⁴²

Miller ends both *The Mating Mind* and *Spent* by emphasizing the possibility of harnessing our evolved psychology to realize a far better future. Singer, too, ends *A Darwinian Left* with a tantalizing vision of how a clearer understanding of our past may perhaps provide a path to a better future. In particular, Singer emphasises the role of reason in directing our behaviour in desirable ways. To conclude this chapter, therefore, I will assess the ‘role of reason’ within our evolved nature.

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In the conclusion to Chapter 7, I argued that, ‘deflated’ appearances to the contrary, Singer’s vision of a Darwinian left ultimately belongs in the utopian tradition of political thought. Briefly, Singer holds out the hope that, by acknowledging and understanding our evolved nature, we could potentially use our capacity to reason to (literally) reason our way beyond the constraints that this nature may impose on our behaviour.

Of course, to those holding a ‘tragic’ vision of human nature, our *limited* capacity to reason is what dooms the utopianism of leftist social reform. For example, in decrying the left’s utopian assumption “that complex social orders can be rationally constructed from the top down to serve some deliberately designed end”, conservative political scientist Larry Arnhart argues that this “unwisely presumes that human beings have enough knowledge of all the numerous and ever-changing factors influencing a social order so that they can plan out its future to attain a goal without unintended consequences”.⁴³

Arnhart instead champions the notion of ‘spontaneous’ social order that arises as the *unintended* outcome of numerous individual actions to realise short-term goals, rather than the intended outcome of the rational design of human minds. According to Arnhart, spontaneous order is fundamental to the conservative view of liberty, in which the most desirable social arrangements are best achieved through individuals and groups acting in their own interests, free from the dictates of a central authority.⁴⁴

Furthermore, Arnhart links the political notion of spontaneous order with evolutionary theory: “Darwin employed this idea of spontaneously evolving order to explain the evolution of complex structures and processes in living things through the random heritable variation with selective retention by natural selection”.⁴⁵ Human society, according to Arnhart’s conservative interpretation of Darwinism, should therefore reflect the spontaneous order of nature.

Nevertheless, the analogy with Darwinian ‘spontaneous order’ can also be drawn in a way that indicates the problems that can result from ‘unplanned’ design. For example, natural selection simply opts for that which works, given prevailing circumstances and resources, with no going back to start again. Natural selection, therefore, can come up vastly unwieldy and inefficient designs – such as the giraffe’s

laryngeal nerve that, due to the gradual evolution of the giraffe's neck, now makes a detour of nine metres to cover a distance that was originally only a few centimetres.⁴⁶ (Indeed, one of the key Darwinian arguments against the notion of an Intelligent Designer or Creator is how *unintelligently* designed many organisms actually are.) And as the varied history of human culture clearly demonstrates, spontaneous social order can also come up with numerous workable designs, however irrational or unpleasant these may seem to the modern liberal mind (e.g., cruel or intolerant social hierarchies or religious practices).

Arnhart, therefore, may be justified in drawing parallels between the evolution of cultural practices and traditions, and the 'spontaneously evolving order' of the natural world. Yet while he is also perhaps correct to caution against sudden or ill-considered disruption of these established traditions or practices (as happened during the French and Russian Revolutions), his implicit political conclusion – namely, that a spontaneous order is the best or the only possible option – is difficult to defend. The liberal democratic society in which Arnhart himself lives, the United States, for example, is a product not only of spontaneous order but also of the rational planning of the nation's founders, those who drafted the American Constitution. Contra Arnhart, therefore, human society can, at least to some extent, 'be rationally constructed from the top down to serve some deliberately designed end'.

This marks a revealing contrast between Singer's Darwinian left argument and Arnhart's Darwinian conservative one. Both use the example of the failures of Soviet-style communism to point to the constraints imposed by human nature on our political aspirations. Yet while Arnhart (following the 'tragic' tradition extending back to Edmund Burke's conservative critique of the French Revolution) uses the failed communist experiment to reject the possibility of wide-ranging social reform, Singer simply argues that these constraints themselves be taken into account in future plans for social reform.

Here, Richard Dawkins' wonderful metaphor of natural selection as a 'blind watchmaker' provides a useful analogy.⁴⁷ (The 'blind watchmaker' is synonymous with the idea of spontaneous order – that is, an explanation for how complex design has occurred in the absence of a designer.) But because we are, as Singer suggests, the first species to understand that we have evolved, and how this might influence our behaviour, we need not be so blind. We can take what we know about predictable human behaviour, and we can use this knowledge to change our behaviour, and hence ultimately to change society.

This is a possibility first indicated by Dawkins himself nearly 40 years ago in *The Selfish Gene*. Here, he suggests that, while we human beings have indeed been built by natural selection as self-replicating 'gene machines', we now possess the ability to turn against our genetic creators: "We, alone on earth, can rebel against the tyranny of the selfish replicators".⁴⁸ Singer's later suggestion about how we may reason our way free from our evolved constraints thus largely reinforces Dawkins' original insight.

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In the case of human beings, the stochastic process of Darwinian evolution has created a creature that is unique in both its use of culture and in its capacity to reason. We can construct and reconstruct our environments through cultural changes, but we are also capable of rationally reflecting on these changes. Harnessing this insight to

the egalitarian aspirations of the left might lead us further towards a society in which human beings can increasingly live harmoniously and cooperatively with each other.

If nothing else, an evolutionary-informed account of why we behave as we do – why we are so easily swayed by the ‘keep up with the Jones’ imperative of modern consumerism, say – could provide further critical insights into the capitalist system. In providing for human needs, capitalism’s ‘invisible hand’ has been more successful on a bigger scale than anything that has come before. Yet, beyond a certain point, this has not provided us with increasingly flourishing and fulfilling lives. Rather, as pointed out by that great philosopher of the modern age, Homer Simpson, consumer capitalism appears to lead increasingly to “boredom, obesity and loss of purpose – you know, the American dream”.

Surely, a better dream is not beyond the evolved but newly conscious capacity of the most intelligent animal the world has thus far seen.

False facts are highly injurious to the progress of science, for they often endure long; but false views, if supported by some evidence, do little harm, for every one takes a salutary pleasure in proving their falseness and when this is done, one path towards error is closed and the road to truth is often at the same time opened.

Charles Darwin *The Descent of Man*

Conclusion

Our political behaviour cannot be truly understood if we overlook its origins in either evolved human nature or historically contingent culture. The left has traditionally emphasised the latter, while ignoring the former. In *A Darwinian Left*, Peter Singer argues that without a clear understanding of what human nature *is*, both culturally and biologically, the left's aspirations for a more egalitarian society may continue to be dashed.

This thesis has defended and developed Singer's argument. I have shown that many of the standard leftist criticisms of Darwinian theory – say, that it is determinist or reductionist, or that it is politically pernicious – are based on misinterpretations of modern evolutionary ideas, or misunderstandings of the social implications of an evolved human nature. My conclusions match those of Singer: that our political ideals are not determined by the scientific facts of an evolved human psychology.

Moreover, I have demonstrated that a Darwinian approach to politically troubling subjects such as the causes of sexual or racial inequality is not necessarily as socially egregious as many leftists fear. Indeed, by adopting a Darwinian perspective on these topics, the left would be in a much better position to effect beneficial social change. At the very least, an evolutionary-informed left could more readily counter pseudo-scientific beliefs about the 'naturalness' or the inevitability of sexual or racial disparities.

I have also emphasised how the left's rejection of evolutionary theory is politically counter-productive. By continuing to defend an implausible view of an infinitely malleable human nature, the left concedes the intellectual high ground to the right. Competitiveness and status-seeking do feature in human nature, and the left is wrong to deny this. An evolutionary-informed left, however, could show that a society designed solely to satisfy these aspects of our nature may negate other, more meaningful evolved characteristics, such as our deep desires for fulfilling social interaction and cooperation.

In the decade or so since the publication of *A Darwinian Left*, very little appears to have changed about leftist attitudes to Darwinism. Yet armed with an accurate view of human nature made possible by modern evolutionary theory, the left could find new ways to bring about radical emancipatory social transformation.

While Singer's Darwinian left has profound implications, his argument is simple. His originality lies in employing Darwinian reasoning for egalitarian political purposes. I hope that this thesis is of a similar nature, and that it extends this originality in further and deeper directions.

Notes to chapters

Chapter 1

¹ Singer, 1999, pp5-6.

² *ibid*, p6.

³ Rosen & Wolff, p3.

⁴ Singer, 1981 p40.

⁵ Singer, 1999, p15.

⁶ Singer himself avoids “a long philosophical discussion of the more egalitarian society to which the left should aspire” and suggests instead that “there are many different ideas of equality that are compatible with the broad picture of the left”. (Singer, 1999, p9.) And while the concepts of equality and egalitarianism are often vexed in a political context – is equality of opportunity sufficient, say, or should it be equality of outcome? – here, I adopt Singer’s broad outline of the left. The better future society to which a Darwinian left would aspire, therefore, is simply an egalitarian one, with equality as a core social value.

⁷ e.g., Rose et al., 1984; Rose & Rose, 2000.

⁸ e.g., Laland & Brown, 2002.

⁹ Dobzhansky, 1973.

¹⁰ Radcliffe-Richards, 2000, p54.

¹¹ *ibid*, p55.

¹² *ibid*, p56.

¹³ e.g., Pinker, 2002; Arnhart, 2005.

¹⁴ Radcliffe-Richards, 2000, p222. Those most likely to resist Singer’s political enterprise, therefore, are also those he most wishes to convince: that is, ‘people of leftward leanings’.

¹⁵ e.g., Allen et al., 1975; Gould, 1977/1979; Midgley, 1979; Rose et al, 1984. Earlier controversial ‘biological’ perspectives on human behaviour included Konrad Lorenz’s *On Aggression* (1966), Robert Ardrey’s *The Territorial Imperative* (1966) and Desmond Morris’ *The Naked Ape* (1967). (See, for example, Leakey & Lewin, 1977/1979.)

¹⁶ e.g., Radcliffe-Richards, 2000; Alcock, 2001; Pinker, 2002; Miller, 2009. See Laland & Brown (2002) for an even handed overview.

¹⁷ Hofstadter, 1955/1979, p389.

¹⁸ Spencer, 1851; quoted in Applemann, 1979, p394.

¹⁹ Carnegie, 1900; quoted in Applemann, 1979, p399.

²⁰ Ironically, both Spencer and Marx share the same private graveyard in Highgate, London.

²¹ Carnegie, 1900; quoted in Applemann, 1979, pp399-400.

²² Pinker, 2003, pp15-16.

²³ Singer, 1999, pp10-12.

²⁴ Fairfax NZ, 2011; Laws, 2009; NZPA, 2011

²⁵ Singer, 1999, p61.

²⁶ Pinker, 2002, p281.

²⁷ Barash, 1995.

²⁸ e.g., Kimmel, 2011, p28; Rose, 2000, p139

²⁹ Kitcher, 2007, p307.

³⁰ Kohn, 2004, p73.

³¹ Pinker, 2002, p281.

³² *ibid*.

³³ The environmentalist conception of human nature, which arose in the 1930s, is an extreme version of the Level 1 view. According to Pinker, for instance, the environmentalist ideology that came to dominate American social science after this time insisted that “*every aspect* of human existence must be explained in terms of culture” (Pinker, 2002, p23, emphasis in original) – or, as evolutionary biologists Kevin Laland and Gillian Brown suggest: “Culture was thought to determine social life

completely – even the most basic elements of how we mate and bring up our children was thought to be constructed by cultures and different from one place to another.” (Laland & Brown, 2002, p54.)

Chapter 2

¹ Stevenson, 1973, p3.

² Singer, 1981, p40.

³ Dawkins, 1976/1989, p1.

⁴ *ibid.*

⁵ *ibid.*, p267.

⁶ Singer, 1981, p43.

⁷ quoted in Pinker, 2003, p296.

⁸ Singer, 1999, p40.

⁹ *ibid.*

¹⁰ Rosen & Wolff, 1999, p3.

¹¹ Wolff, 1996, p7.

¹² *ibid.*, p26, emphasis added.

¹³ The 19th century anarchist Michael Bakunin, whose views are contrasted with those of Marx at the beginning of Singer’s *A Darwinian Left*, was similarly sceptical of the value of armchair theorising about human nature. In his *Statism and Anarchy*, for example, Bakunin argues: “[Anarchists] have neither the intention nor the least desire to impose ... an ideal social organization that we have drawn up from books or thought up on our own. In the belief that the masses bear all the elements of their future organizational norms in their own more or less historically evolved instincts, in their everyday needs and their conscious and unconscious desires, we seek that ideal within the people themselves.” (Bakunin, 1873; quoted in Rosen & Wolff, 1999:75.)

¹⁴ Rosen & Wolff, 1999, p3.

¹⁵ Kropotkin, 1910/1939.

¹⁶ Singer, 1999, p20. In this respect, Kropotkin was hardly alone; well into the second half of the 20th century, the notion that animals behaved ‘for the good of the species’ went largely unquestioned in mainstream biology. Indeed, Wilson’s *Sociobiology* and Dawkins’ *Selfish Gene* in the 1970s were amongst the first popular attempts to demonstrate the fallacy of such thinking – that altruistic behaviour, however much it might benefit a group, could never have arisen unless it ultimately benefitted an individual organism (or, rather, that individual’s genes).

¹⁷ Pinker, 2003, p305.

¹⁸ Stevenson, 2004, pp2-3.

¹⁹ *ibid.*, p196.

²⁰ *ibid.*, p197.

²¹ *ibid.*

²² *ibid.*, p234.

²³ Darwinian materialists (those who accept that life emerged from matter, and consciousness from life, by the stochastic processes of Darwinian evolution) can therefore employ evolutionary theory as one means to challenge any social prescriptions that are based on religious or supernatural conceptions of human nature – for example, that certain behaviours are prescribed or proscribed by God (e.g., that women should be subservient to men, or that homosexual activity is an abomination).

²⁴ Singer, 1999, p32.

²⁵ *ibid.*

²⁶ Kymlicka, 2002, p6.

²⁷ *ibid.*

²⁸ Arnhart, 2005, p129.

²⁹ *ibid.*, p128.

³⁰ Savelescu, 2010, p2.

³¹ *ibid*, p3.

³² *ibid*.

³³ Singer, 1999, p8.

Chapter 3

¹ Gayon, 2003, p240.

² Tallis, 2008.

³ Allen et al., 1975, p43.

⁴ Rose et al., 1984, p6.

⁵ *ibid*, p8.

⁶ Singer, 1999, p15.

⁷ *ibid*, p10.

⁸ *ibid*, p19. As an aside: Richard Dawkins, from whom Singer draws many of his Darwinian arguments, also refers to Tennyson's phrase, and comments: "I think 'nature red in tooth and claw' sums up our modern understanding of natural selection admirably". (Dawkins, 1976/1989, p2.)

⁹ quoted in Rose, 2000, p133.

¹⁰ quoted in Radick, 2003, p155.

¹¹ *ibid*.

¹² Oakley, 2002, p178.

¹³ Briefly, sperm competition is the idea that, in species where females engage in promiscuous mating with several males, the spermatozoa of these males 'compete' in ways that enhance the chance of fertilisation – e.g., by blocking or swamping rivals' sperm.

¹⁴ Oakley, 2002, p180.

¹⁵ Jagger, 1983/1999, p49.

¹⁶ *ibid*, p50.

¹⁷ *ibid*. In their influential *Not In Our Genes*, Rose et al. provide a similar Marxist critique of science, including the claim that "'Science' is the ultimate legitimator of bourgeois ideology". (Rose et al., 1984, p31.)

¹⁸ Sokal, 1996.

¹⁹ *ibid*.

²⁰ Dawkins, 1998. In respect of hydraulics, Dawkins quotes from the relevant relativist analysis: "Whereas men have sex organs that protrude and become rigid, women have openings that leak menstrual blood and vaginal fluids"; thus, given that scientists are usually men, "[t]he problem of turbulent flow cannot be solved because the conceptions of fluids (and of women) have been formulated so as necessarily to leave unarticulated remainders." Dawkins sarcastically suggests that perhaps the real reason why modeling turbulence is difficult is because the mathematical calculations are hard. (Presumably, here, he means the maths is hard in the 'difficult' and not the 'rigid' sense.)

²¹ Oakley, 2002, pp189-191.

²² *ibid*, p178.

²³ *ibid*, p179.

²⁴ Note my use of scare quotes to indicate hesitancy about whether Oakley's really is an objective analysis; importantly, this typological device is similarly used by Oakley to demonstrate a sceptical stance on the evolutionary concepts she discusses.

²⁵ *ibid*, p180.

²⁶ Hrdy, 1999, p39.

²⁷ *ibid*.

²⁸ see Laland & Brown, 2002, and the discussion in the previous chapter.

²⁹ Kimmel, 2008, p27.

³⁰ *ibid*.

³¹ Lips, 1993, p53.

³² Oakley, 2002, p183.

³³ Pinker, 2003, p109.

³⁴ This is perhaps most apparent in Oakley's, Kimmel's and Lip's particular academic field – gender studies. For example, if Singer's Darwinian left approach were extended to the question of gender roles, then possible lingering influences of our immense evolutionary history on the behaviour of men and women could be taken into account in any political designs for a more sexually equitable world. This would appear in keeping with the ethos of feminist egalitarianism. Oakley, however, effectively dismisses the fact that humans have evolved from earlier sexually reproducing species over millions of years with the claim that “the two-sexed body is a post-Enlightenment cultural construct”. (Oakley, 2002, p187.)

³⁵ Hrdy, 1999, pXVII.

³⁶ Burr, 1998; Dunphy, 2000; Kimmel, 2011; Lips, 1993; Oakley, 2002; Wharton, 2005.

³⁷ Fausto-Sterling, 2000, p219.

³⁸ Oakley, 2002, p186.

³⁹ Hrdy, 1999, p53.

⁴⁰ *ibid.*

⁴¹ *ibid.*, pXVIII.

⁴² quoted in Sanderson, 2001, p37.

⁴³ Paul, 2003, pp214-5.

⁴⁴ see Paul, 2003. Petr Kropotkin similarly emphasises cooperation (or ‘mutual aid’) in his Darwinian account of human moral and political evolution. He concludes his *Mutual Aid* by arguing: “In the practice of mutual aid ... we thus find the positive and undoubted origin of our ethical conceptions; and we can affirm that in the ethical progress of man, mutual support – not mutual struggle – has had the leading part. In its wide extension, even at the present time, we also see the best guarantee of a still loftier evolution of our race.” (Kropotkin, 1902/1939, p234.)

⁴⁵ Paul, 2003, p230.

⁴⁶ Pinker, 2002, p153.

⁴⁷ Paul, 2003, p236.

⁴⁸ *ibid.*, pp236-237.

⁴⁹ For example, while himself concerned about the implications of ETOHN, sociologist Howard Kaye notes the “error of equating biological arguments with conservative politics” committed by the likes of palaeontologist (and influential leftist) Stephen Jay Gould. Indeed, Kaye suggests that such critiques are “Conceptually weak and historically ill-informed”. (Kaye, 1997, p4.)

⁵⁰ Rose, 2000, p149.

⁵¹ Oakley, 2002, p185.

⁵² Ridley, 1996, p261.

⁵³ *ibid.*, p260.

⁵⁴ *ibid.*, p261.

⁵⁵ *ibid.*, pp261-2. It is worth noting here that Ridley premises his comments with reference to Margaret Thatcher – a move guaranteed to raise leftist hackles.

⁵⁶ Few academics, for example, would accept that ‘the administration’ operates solely for the benefit of lecturers or students, or with the sole intent of providing the best possible environment for learning and research. The vested interest of the humans who work within a university bureaucratic system – or, indeed, within an academic department – is one possible cause of the disparity between what the administration is supposed to provide and how it actually operates. And why would government administration be any different?

⁵⁷ Ridley, 1996, p263.

⁵⁸ Oakley, 2002, p185.

⁵⁹ Miller, 2009, p252.

⁶⁰ In Miller's opinion, for instance, ETOHN's critics “conflate the worst excesses of 1860s social Darwinism, 1890s union-busting capitalism, 1930s Nazi eugenics, and 1970s sociobiology with the

twenty-first-century science of human nature”, but they then fail to explain why modern ETOHN “has attracted the support of so many socially conscious progressive thinkers”, including Peter Singer. (Miller, 2009, p252.) Ecologist and feminist Patricia Gowaty similarly indicates the “scientific illiteracy” of many of her fellow feminists, and how this leads to “shallow understandings of the nature of science and ignorance of basic Darwinian processes”. (quoted in Vandermassen, 2008, p483.)

Chapter 4

¹ quoted in Paul, 2003, p214.

² Dawkins, 2009, p392, italics in original.

³ This, Dawkins makes clear, is simply one of a number of plausible theories of the origins of life; other more recent speculation (e.g., Young, 2012.), for instance, posits life arising in deep sea vents.

⁴ Dawkins, 1976/1989, p15.

⁵ *ibid*, pp19-20.

⁶ e.g., Laland & Brown, 2002.

⁷ Dawkins, 1976/1989, p267.

⁸ A number of other related biological concepts emerged in the 1960s and 1970s that also seemed to undermine the ‘value’ or meaning of human behaviour – for example, kin selection theory (that cooperative behaviour is proportional to organisms’ shared genetic relationship) and reciprocal altruism (that ‘altruism’ depends ultimately on cooperative acts being paid back in future). (e.g., Laland & Brown, 2002; Wright, 1996.)

⁹ Rose, 2000, p10.

¹⁰ Kaye, 1997, p141.

¹¹ e.g., Midgley, 1979.

¹² Stevenson, 2004, p2.

¹³ *ibid*, p3.

¹⁴ Rose et al., 1984, p18.

¹⁵ *ibid*, p236.

¹⁶ In *Gender and Social Psychology*, for example, psychologist Vivien Burr concludes her discussion of sociobiology with the claim: “These biological accounts are extreme forms of reductionism and determinism, and the pity is that most biological accounts within psychology have this flavour.” (Burr, 2002, p37.) Further, in sociologist Anne Oakley’s view, “biological determinism: the dangerously fundamentalist idea that our conduct is irretrievably driven by the bodies we inhabit” is itself a distinguishing feature of Darwinism’s ‘delusional system’. (Oakley, 2002, p192.)

¹⁷ Rose & Rose, 2000, p6. Howard Kaye, meanwhile, traces modern reductionism and determinism to discoveries about DNA and the genetic coding of proteins, which have given some evolutionary theorists a new (but in Kaye’s view, warped) view of life: “Reproduction of the genetic ‘program’ must now be viewed as both the cause and aim of all life, including that of man. From such a perspective, the mind of man is reduced to the genetic ‘program’ that ‘wires’ the brain and to the reproductive purposes it ‘must’ serve.” (Kaye, 1997, pp159-160.)

¹⁸ quoted in Radcliffe-Richards, 2000, p103.

¹⁹ For example, zoologists Kevin Laland and Gillian Brown argue: “While most evolutionary biologists focus exclusively on genetic inheritance, it does not follow that they believe that genes are the sole determinant of human behaviour, and the vast majority take it for granted that multiple environmental influences will play a part throughout development.” (Laland & Brown, 2002, p17.)

²⁰ Dawkins, 1976/1989, p268.

²¹ *ibid*, p331. The charge of determinism is similarly refuted by other evolutionists. According to behavioural ecologist Sarah Hrdy, for example: “It is clear that genes are not puppeteers directing behaviour” and that “Images of genes controlling people like puppets are more often invoked by critics of sociobiology than by its practitioners”. (Hrdy, 1999, pp57-58.) E.O. Wilson suggests that the problem is not ‘genetic determinism’ per se, but how this concept is interpreted within the social

sciences: “To those who wish to reject the implications of sociobiology out of hand, it [‘genetic determinism’] means development is insect-like, confined to a single channel, running from a given set of genes to the corresponding single predestined pattern of behaviour.” (Wilson, 1978/2004, p55.)

²² Wilson, 1978/2004, pp56-57.

²³ Laland & Brown, 2002, p97.

²⁴ Wilson, 1978/2004, p167.

²⁵ Singer, 1999, p34.

²⁶ *ibid*, p38.

²⁷ quoted in Radcliffe-Richards, 2000, p104.

²⁸ quoted in Radcliffe-Richards, 2000, p104. The fact that you cannot unbake a potato being the classic example of an irreversible environmental change.

²⁹ Laland & Brown, 2002, p96.

³⁰ Rose et al., 1984, p5, emphasis added.

³¹ Dawkins, 1985b. Elsewhere, Dawkins suggests “that ‘reductionism’ is one of those things, like sin, that is only mentioned by people who are against it”. (Dawkins, 1985a, p13.) E.O. Wilson concurs, suggesting that ‘reductionism’ is one of many academic ‘sins’ “made official by the hissing suffix”. (Wilson, 1998, p9.)

³² Wilson, 1998, p7.

³³ *ibid*, p9. Using history, which at present is a distinct branch of learning, as an example, Wilson goes on to suggest: “Nothing fundamental separates the course of human history from the course of physical history Astronomy, geology, and evolutionary biology are examples of primarily historical disciplines linked by consilience to the rest of the natural sciences”. Interestingly, biogeographer Jared Diamond presents a similar argument in *Guns, Germs and Steel*, where he calls for a broader ‘science of human history’, analogous to other established historical sciences, such as astronomy, evolutionary biology and geology, that would extend historical causal analysis many millennia back towards the ultimate historical processes that have shaped the modern human world. (Diamond, 2005.) Similarly, integrating an evolutionary account of human nature into political theory, which currently relies largely on out-dated speculation, would represent this kind of ‘consilience’.

³⁴ Pinker, 2002, p69.

³⁵ *ibid*, p70.

³⁶ *ibid*, emphasis in original.

³⁷ Pinker, 2002, p72.

³⁸ Wilson, 1998, p12.

³⁹ Rose, 2000, p150.

⁴⁰ Laland & Brown, 2002, p273.

⁴¹ *ibid*, p272.

⁴² *ibid*, pp273-274.

⁴³ *ibid*, p97.

⁴⁴ Singer, 1999, p37.

⁴⁵ Indeed, this illustrates a distinct and important feature of Darwinian science: that while (like other sciences) evolutionary biology attempts to provide an objective account of the world, and that while most intelligent people have little difficulty in accepting its objective account of bacteria, say, or barnacles or bees, we find it difficult to be similarly objective when the evolutionary lens is focussed on our own species – that is, on ourselves.

⁴⁶ Nepotism itself originally referred to the practice of bestowing privileges on the ‘nephews’ of prominent churchmen, who were often their illegitimate sons.

⁴⁷ Wright, 1996, p176. Wright’s arguments are used for illustrative purposes only; i.e., they may not necessarily reflect the only evolutionary explanation for the relevant aspects of parental behaviour.

⁴⁸ Wright, 1996, p176.

⁴⁹ *ibid*, p174.

⁵⁰ Similarly, I *hope* that the reason I find my parents to be annoying old cretins is because that is what they are, rationally assessed, and not because my genes have determined that they've outlived their usefulness to me.

⁵¹ Dawkins, 1976/1989, p3.

⁵² And could this not also be said of the coolly rational plans for child-rearing in Plato's Republic, those that were put into practice, say, in socialist kibbutzim? Indeed, according to Steven Pinker, the kibbutzim movement largely abandoned its policy of rearing children collectively, separate from their parents, because it proved unworkable; it conflicted with the deep (evolved) emotional desires of parents to care for their own children. (Pinker, 2002, p246.)

⁵³ Kimmel, 2008, p27.

⁵⁴ Rose, 2000, p147.

⁵⁵ Irons posits a three-fold process of human maternal bonding. The first stage "consists of the new mother's assessing her resources for child rearing", a process "often accompanied by emotional indifference toward the infant, which often alarms the staff of modern hospitals". The second stage "occurs over the course of about a week after birth and consists of the establishment of an individualized love", while the third process, "which occurs over many years, consists of a gradual deepening of maternal love". (Irons, 1998, p201.)

⁵⁶ Hrdy, 1999, p378.

⁵⁷ *ibid*, p378.

⁵⁸ *ibid*, p377.

⁵⁹ Burr, 2002, p32.

⁶⁰ *ibid*, p48. Essentialism – the notion that categories of people, such as women and men, or members of racial groups, have *intrinsically different* characteristics, natures or dispositions – is another charge often imputed to ETOHN.

⁶¹ Burr, 2002, p32.

⁶² Rose et al., 1984, pp161-162, emphasis added.

⁶³ Rose et al., 1984, p162.

⁶⁴ Hrdy, 1999, p535.

Chapter 5

¹ Singer, 1999, p10.

² Darwin, 1871/2009b, p403.

³ As historian Diane Paul points out, with Darwin "there was always an 'on the other hand'". (Paul, 2003, p222.)

⁴ Singer, 1999, p11.

⁵ Arnhart, 2005, p2.

⁶ Singer's broad argument concerning the fact/value distinction is largely uncontroversial – as he himself points out, this distinction has a philosophical pedigree stretching at least as far back as David Hume, in the mid-18th century. The following discussion, therefore, will mostly extend rather than question Singer's basic analysis of the *is/ought* gap.

⁷ Singer, 1999, p19.

⁸ *ibid*, p12.

⁹ The fact/value distinction, of course, applies to all political arguments that may invoke Darwinism, and Singer therefore acknowledges that "there can be a Darwinian left as easily as there can be a Darwinian right". (Singer, 1999, p13.) In either case, the facts of human nature themselves do not tell us whether one set of political values is better or worse than the other; these facts may, however, inform us about the likelihood of success if particular political ideas are put into practice.

¹⁰ Pinker, 2002, p162.

¹¹ Ridley, 1996, p258.

¹² Singer, 1999, p27.

- ¹³ *ibid.*
- ¹⁴ quoted in Singer, 1999, p28.
- ¹⁵ For instance, many of the original opponents of the application of evolutionary ideas to human beings – including high profile scientists such as Stephen Jay Gould, Richard Lewontin and Steven Rose – were Marxists or otherwise active on the political left.
- ¹⁶ Singer, 1999, p5.
- ¹⁷ *ibid.*, p14.
- ¹⁸ *ibid.*, p15.
- ¹⁹ *ibid.*
- ²⁰ Darwin appeared *morally* concerned by the fact that “the reckless, degraded, and often vicious members of society, tend to increase at a quicker rate than the provident and generally virtuous members”. (Darwin, 1871/2009a, p174.)
- ²¹ Stevenson, 2004, p4.
- ²² *ibid.*, p4.
- ²³ Singer, 1999, p16.
- ²⁴ *ibid.*, p16.
- ²⁵ *ibid.*, p17.
- ²⁶ Arnhart, 2005, p1.
- ²⁷ *ibid.*, p3. It is significant that both Singer’s and Arnhart’s Darwinian approaches to politics are motivated by a similar belief – namely, that modern political theorists face many challenges arising from the new discoveries and new knowledge in evolutionary science and related fields such as genetics, neurobiology and developmental biology. Arnhart therefore argues: “If conservatism is to remain intellectually vigorous, conservatives will need to show that their position is compatible with this new science of human nature.” (Arnhart, 2005, p3.) By replacing ‘conservatism’ and ‘conservatives’ with ‘egalitarianism’ and ‘egalitarians’ respectively, this would match this thesis’ argument about why the left must take seriously the fact that we are evolved animals.
- ²⁸ Arnhart, 2005, p26.
- ²⁹ *ibid.*, p27.
- ³⁰ *ibid.*, p26.
- ³¹ *ibid.*, pp26-27.
- ³² *ibid.*, p27.
- ³³ e.g., Rachels, 2007, pp100-103.
- ³⁴ Arnhart, 2005, p26.
- ³⁵ *ibid.*, p28.
- ³⁶ *ibid.*, p7, emphasis added.
- ³⁷ Arnhart, 2005, p28.
- ³⁸ *ibid.*, p30.
- ³⁹ *ibid.*, p58.
- ⁴⁰ *ibid.*, p52. Here, Arnhart’s conservative claims about the naturalness/rightness of women as child-rearers, or of men as political leaders, reflects the ubiquitous leftist fear that Darwinian reasoning inevitably leads to right-wing conclusions – note, for example, Rose et al.’s point about how Darwinian theory is readily “seized upon as a political legitimator by [the right], which finds its social nostrums so neatly mirrored in nature”. (Rose et al, 1984, p7.)
- ⁴¹ Arnhart, 2005, p29.
- ⁴² *ibid.*, p29.
- ⁴³ *ibid.*
- ⁴⁴ Singer, 1999, p61.
- ⁴⁵ Singer, 1999, p62.

Chapter 6

- ¹ Mead, 1928/1965, pp190-191.
- ² *ibid*, p193.
- ³ *ibid*, p10, emphasis added.
- ⁴ Mead, 1928/1965, p6, emphasis added.
- ⁵ Mead, 1928/1965, pp13-15.
- ⁶ *ibid*, pp18-23.
- ⁷ Ridley, 1996, p256.
- ⁸ Mead, 1928/1965, p11.
- ⁹ *ibid*, p18.
- ¹⁰ *ibid*, p6.
- ¹¹ *ibid*, p11.
- ¹² Kimmel, 2011, p57.
- ¹³ *ibid*, pp59-61.
- ¹⁴ Wright, 1996, p75.
- ¹⁵ Singer, 1999, p33.
- ¹⁶ *ibid*.
- ¹⁷ Ridley, 1996, p257.
- ¹⁸ Pinker, 2002, p115.
- ¹⁹ *ibid*, pVIII, emphasis in original.
- ²⁰ Pinker, 2002, p119.
- ²¹ e.g., Alcock, 2001; Laland & Brown, 2002; Segerstrale, 2000; Radcliffe-Richards, 2000.
- ²² Rose, 2000, p150.
- ²³ Kimmel, 2011, p57.
- ²⁴ Kimmel, 2011, pp422-423. Kimmel nevertheless insists “challenges to the core insight of her work ... [on] cultural variation in gender roles, are unsubstantiated and unconvincing”.
- ²⁵ Singer, 1999, p24.
- ²⁶ *ibid*, p27.
- ²⁷ *ibid*, p23.
- ²⁸ Pinker, 2002, pXI.
- ²⁹ Orwell, 1937/1980, p131.
- ³⁰ Geras, 1983, p95.
- ³¹ *ibid*, pp95-96.
- ³² *ibid*, p109.
- ³³ A similar point was made in Chapter 4 about the possible genetic basis of ‘parental love’. At first glance, this notion might appear unpalatable because it reduces a parent’s love for a child to the (‘selfish’) dictates of genes. However, the alternatives, that such ‘love’ is the result of social conditioning, say, or of rational decision-making, could be equally abhorrent – that, given different social conditioning, ‘parental indifference’ is just as possible.
- ³⁴ Geras, 1983, p113.
- ³⁵ *ibid*, p110.
- ³⁶ Kropotkin, 1910/1939, pp23-24.
- ³⁷ Ridley, 1996, p5.
- ³⁸ Singer, 1999, p20.
- ³⁹ Indeed, this tendency has undoubtedly been exacerbated by misunderstandings of the modern ‘selfish gene’ concept. Kropotkin, for example, along with most other Darwinian scientists until the 1960s, did not recognise a key facet of the inexorable logic of natural selection: that behaviour that does not ultimately benefit the individual (or, rather, the individual’s genes) will not persist. Unless altruism, for example, allows the perpetuation of altruists, then altruistic behaviour would never have evolved. The ‘selfish gene’ concept, therefore, is part of an attempt to explain how altruism could have arisen in the first place; it is not, as its detractors too often assume, part of an attempt to deny the human capacity for altruistic behaviour.

⁴⁰ Arnhart, 2005, p5.

⁴¹ Singer, 1999, p4.

⁴² *ibid*, p5, quoting Marx's 'Theses on Feuerbach'.

⁴³ Singer, 1999, p5.

⁴⁴ Singer, 1999, p38.

⁴⁵ *ibid*.

⁴⁶ *ibid*, p39.

⁴⁷ Singer, 1999, p39. Singer goes on to comment: "The point is: what egalitarian revolution has not been betrayed by its leaders? And why do we dream that the next revolution will be any different?"

⁴⁸ Singer, 1999, p39.

⁴⁹ Of course, Singer here assumes that these tendencies are indeed a feature of our evolved nature. The point is, irrespective of the 'positive' biological evidence that may confirm Singer's belief in the inherent human tendency to form hierarchies, 'negative' arguments should give those committed to the blank slate view of human nature pause for thought. For example, it could be argued that social systems of rank are the consequence of humans being conditioned by existing hierarchical social organization. This argument, though, would beg the question of how and why such hierarchical structures arose in the first place, and why human beings so readily form such ranking systems. Thus, even if human hierarchies are an emergent feature of social complexity (rather than an inherent feature of our nature), the fact that we easily adapt to them is at least suggestive of some psychological predisposition to behave in this way. And if we take into account the 'natural' hierarchical behaviour of our primate relatives, and by extension our nonhuman ancestors, it appears implausible that humans lost this tendency at some point in their evolutionary history, only for it to later re-emerge as an exclusively socially-conditioned phenomenon.

⁵⁰ Boehm, 1999, pp3-4.

⁵¹ *ibid*, p4.

⁵² *ibid*, p10.

⁵³ *ibid*, p12.

⁵⁴ *ibid*, p12.

⁵⁵ *ibid*, p257.

⁵⁶ *ibid*, pp256-257.

⁵⁷ *ibid*, p258.

⁵⁸ quoted in Kimmel, 2011, p30.

Chapter 7

¹ Marx, 1844.

² Such a notion appears to match the palaeontologic distinction between anatomically modern humans and behaviourally modern ones, in which the former have merely the physical characteristics of modern *Homo sapiens*, with the latter displaying both a modern human anatomy and evidence of complex cultural behaviour (e.g., art, religious belief, trade or technological innovation). In some anthropological accounts, moreover, the advent of culturally modern humans marks the 'Great Leap Forward' towards today's complex, technologically-dependent existence. (e.g., Diamond, 2005; Stringer, 1996; Wells, 2003.) In such accounts, culture is thereafter assumed to have replaced biology as the major explanatory factor in human history.

³ For example, in primate groups the reproductive advantages of being able to dominate others, or to resist being dominated, are an obvious focus for natural selection of particular behaviours, and it is difficult to see why such factors and such selective pressures would simply disappear once a particular species of primate (i.e., us) had evolved cultural complexity.

⁴ Cosmides & Tooby, 1997.

⁵ Ridley, 1993, p10.

⁶ Brown, 1991, p154.

⁷ Pinker, 2002, p55

⁸ Evolutionary psychology's universalism, therefore, downplays human difference – a welcome contrast, according to palaeobiologist Stephen Jay Gould, to “the conservative implications of most previous evolutionary arguments about behavior, which viewed variation among individuals and groups as results of different, and largely unalterable, genetic constituents”. (Gould, 2000, p118.)

⁹ Couched in Marxist dialectical terms, this would see the left's environmentalist ‘thesis’ merging with its biological ‘antithesis’ to create a new ‘synthesis’ in the form of a Darwinian left.

¹⁰ Singer, 1999, p62.

¹¹ *ibid*, pp62-63

¹² Wright, 2010, p1.

¹³ Casual observation of modern democracies supports Wright's conclusion: to the neutral observer, there often appears little of substance to distinguish left-of-centre parties from right-of-centre ones in most modern Western democracies, with popular non-capitalist political parties conspicuous largely in their absence.

¹⁴ Singer, 1999, p15.

¹⁵ Singer, 1999, p15, emphasis added.

¹⁶ Singer, 1999, pp15-16.

¹⁷ e.g., Arnhart, 2005; Brooks, 2010; Pinker, 2002; Wright, 1996.

¹⁸ Brooks, 2010.

¹⁹ Arnhart, 2005, p6.

²⁰ Wright, 2010, p6.

²¹ *ibid*, p7.

²² Singer, 1999, p40.

²³ *ibid*, p40.

²⁴ Pinker, 2002, pp287-288.

²⁵ Singer, 1999, pp35-39.

²⁶ e.g., Alcock, 2001; Miller, 2009.

²⁷ Laland & Brown, 2002, p162.

²⁸ This domain-specific view of the mind contrasts with a domain-general one – the latter being the non-evolutionary psychology assumption that the mind is like a general-purpose computer, with processes operating across different domains.

²⁹ Pinker, 1994, p18.

³⁰ *ibid*, p18.

³¹ Cosmides & Tooby, 1997. Evolutionary aesthetician Denis Dutton goes as far as to suggest that an ‘art instinct’ underlies much of human creative expression. (Dutton, 2009.)

³² Ridley, 1993, p8.

³³ *ibid*.

³⁴ Pinker, 2002, pp288-289, emphasis in original. Compare this with Rose et al.'s traditional (and more inspiring) leftist belief “that inequalities of wealth, power, and status are not ‘natural’ but socially imposed obstacles to the building of a society in which the creative potential of all its citizens is employed for the benefit of all”. (Rose et al, 1984, p9)

³⁵ e.g., Laland & Brown, 2003, p99.

³⁶ Diabetes is three times more common in Maori than non-Maori, and causes nine times more deaths amongst middle-aged Maori than amongst non-Maori of the same age. (Robson & Harris, 2007, p162.)

³⁷ Wright, 2010, p6.

³⁸ This problem of definition, though, is not peculiar to Singer's Darwinian argument. Evolutionary discussions of human behaviour are replete with similarly ill-defined terms, including the old-fashioned concepts of biological ‘urges’ or ‘drives’, and modern equivalents such as ‘predilection’, ‘disposition’, ‘predisposition’, ‘tendency’ or ‘trait’, in addition to various imprecise notions of ‘innate’, ‘inherent’, ‘inherited’ or ‘instinctive’ behaviours. (e.g., Bateson, 2000; Boehm, 1999, p230; Laland & Brown, 2002, pp159-160.)

- ³⁹ e.g., Bolhuis et al., 2011; Sterelny, 2003.
- ⁴⁰ Cosmides & Tooby, 1997, emphasis in original. By ‘phenotype’ they mean an organism’s observable characteristics, including behavioural characteristics.
- ⁴¹ Cosmides & Tooby, 1997.
- ⁴² Singer, 1999, p36.
- ⁴³ Laland & Brown, 2002, p196.
- ⁴⁴ Sterelny, 2003, p146, emphasis added.
- ⁴⁵ Beaver lodges or termite nests provide other, less complex, examples of an ‘engineered’ buffer from the outside environment.
- ⁴⁶ Sterelny, 2003, p172.
- ⁴⁷ In this posited ‘environment of evolutionary adaptedness’, the ancestral human mind is thought of as adapting to overcome stable and predictable problems (finding mates, hunting animals, gathering plants, etc.) – thus, from the evolutionary psychology perspective, our brains are replete with numerous ‘problem-solving devices’ dedicated to providing appropriate responses to the predictable situations in which our ancestors would have found themselves.
- ⁴⁸ Laland & Brown, 2002, p182.
- ⁴⁹ Bolhuis et al, 2011, p6. According to science writer Kenan Malik, even the seeming universality of many human behaviours may not necessarily be evidence of an underlying universal human nature, but rather of universal problems for which there are only a limited number of solutions. (Malek, 2006.)
- ⁵⁰ Laland & Brown, 2002, pp182-3.
- ⁵¹ Singer, 1999, p62.
- ⁵² *ibid*, p63.
- ⁵³ *ibid*.
- ⁵⁴ Arnhart, 2005, p19.
- ⁵⁵ *ibid*, p21.
- ⁵⁶ Boehm, 1999, p224.
- ⁵⁷ Arnhart, 2005, p21.
- ⁵⁸ Wright, 2010, p6.

Chapter 8

- ¹ Summers, 2005.
- ² *ibid*.
- ³ *ibid*.
- ⁴ Baumeister, 2007.
- ⁵ Belliotti, 1993, p315.
- ⁶ Arnhart, 2005, p51.
- ⁷ *ibid*, p51.
- ⁸ Singer, 1999, p37.
- ⁹ *ibid*, p18.
- ¹⁰ *ibid*, p17.
- ¹¹ *ibid*, pp17-18. This is often described as female ‘coyness’ – a loaded term, as critics are quick to point out. (e.g., Fausto-Sterling, 2000, p212.)
- ¹² Singer’s argument is premised on the modern Darwinian concept of differential parental investment, described by palaeontologist Stephen Jay Gould as “the most promising theory of evolutionary psychology: the recognition that differing Darwinian requirements for males and females imply distinct adaptive behaviours centered upon male advantage in spreading sperm as widely as possible (since a male need invest no energy in reproduction beyond a single ejaculation) and female strategies for extracting additional time and attention from males (in the form of parental care or supply of provisions, etc.)”. (Gould, 2000, p121. See also Baumeister, 2007; Dutton, 2009; Laland & Brown,

2002; Miller, 2000 & 2009; Pinker, 2002 & 2005; Radcliffe-Richards, 2000; Ridley, 1993; Rubin, 2002; Vandermassen, 2008.)

¹³ Singer, 1999, p18.

¹⁴ Fausto-Sterling, 2000, p211.

¹⁵ Indeed, negative attitudes towards women appear near-universal in human groups – according to sociologist Stephen Sanderson, for example: “Beliefs in the inferiority of women are widespread, and in many societies women are regarded as sources of evil and pollution.” (Sanderson, 2001, p196.)

¹⁶ Wilson, 1966, p48.

¹⁷ According to the standard leftist view, in which evolutionary theories are motivated by (or supportive of) right-wing or conservative beliefs, Darwinism is merely an ideological prop to the sexist attitudes and beliefs that underpin obvious and unfair gender inequalities. Larry Arnhart’s openly conservative Darwinian interpretation of human sex relations – for example, his claim that “there are natural differences between men and women, differences rooted in human biology that cannot be abolished by cultural conditioning or deliberate legislation” (Arnhart, 2005, p51) – would seem to confirm these leftist beliefs.

¹⁸ e.g., Ridley, 1993; Wright, 1996.

¹⁹ Sanderson, 2001, p196.

²⁰ Pinker, 2005.

²¹ Sanderson, 2001, p203.

²² e.g., Gould, 2000, p121.

²³ Baumeister, 2007.

²⁴ Sanderson, 2001, p195.

²⁵ *ibid*, pp195-6.

²⁶ Baumeister, 2007, emphasis in original. Sarah Hrdy, however, qualifies this apparent difference in male/female sex drive. While the human male (or, if there is any real difference, his testes) could perhaps be seen as “a gamete-making machine almost continuously charged and ready to reproduce, not just ever-ready to mate but ever-ready to fertilize”, if comparisons between men’s and women’s libidos are confined to the period when women are most fertile, “the much-remarked dichotomy between ardent males and coy females begins to pale”. (Hrdy, 1999, pp224-225.) Sex, therefore, can be equally important to both sexes for *some* of the time; at other times, however, there are more significant things in life for women.

²⁷ Skateboarding provides another anecdotal example of Baumeister’s point: although males and females have similar balancing abilities, young males appear far more motivated to endlessly practice the same tricks over and over and over again.

²⁸ Hrdy, 1999, p209.

²⁹ *ibid*, p210.

³⁰ *ibid*, p212.

³¹ *ibid*, p213.

³² *ibid*, p212.

³³ Baumeister, 2007.

³⁴ Pinker, 2005.

³⁵ Baumeister takes a swipe at this belief by pointing out that, just as more males are likely to be geniuses, so too are more males likely to be cognitively disabled: “All those retarded boys are not the handiwork of patriarchy. Men are not conspiring together to make each other’s sons mentally retarded.” (Baumeister, 2007.)

³⁶ Baumeister, 2007.

³⁷ Pinker, 2005.

³⁸ Baumeister, 2007.

³⁹ *ibid*, emphasis in original.

⁴⁰ Baumeister, 2007.

⁴¹ see Mayell, 2003.

- ⁴² Grimshaw, 1993, p493, emphasis in original.
- ⁴³ *ibid*, p493.
- ⁴⁴ Pinker, 2011, p526.
- ⁴⁵ *ibid*, pp527-528.
- ⁴⁶ *ibid*, p686.
- ⁴⁷ Ridley, 1993, p254, emphasis added.
- ⁴⁸ *ibid*, p255.
- ⁴⁹ Grimshaw, 1993, p495.
- ⁵⁰ *ibid*, p493.
- ⁵¹ Human hubris perhaps plays a part here: that while we are able to objectively analyse animal behaviour, in the case of our own species we are likely to assign subjective value to some behaviours rather than others because that is how our evolved minds tend to operate.
- ⁵² Hrdy, 1999, p5.
- ⁵³ *ibid*, pp5-6.
- ⁵⁴ *ibid*, p6. Of course, explaining the evolutionary origin of these emotions tells us nothing about the morality of abortion; once again, facts do not determine values.
- ⁵⁵ Hrdy, 1999, p6.
- ⁵⁶ *ibid*. Anecdotally, I have noticed a local church – in little old Christchurch, New Zealand – proudly advertising its new ‘Promise Keeping’ programme.
- ⁵⁷ Grimshaw, 1993, pp498-499.
- ⁵⁸ Vandermassen, 2008, p490.

Chapter 9

- ¹ quoted in Skilton, 2004.
- ² Darwin, 1871/2009a, pp239-240.
- ³ Diamond, 2005, p24.
- ⁴ *ibid*, p15.
- ⁵ *ibid*, p18. This assumption, it should be noted, was simply a given in Darwin’s own seminal discussion of human evolution, the *Descent of Man*. According to Darwin: “There is ... no doubt that the various races, when carefully compared and measured, differ much from each other” – indeed, not only do members of different races vary in their physical forms, but “[t]heir mental characteristics are likewise very distinct; chiefly as it would appear in their emotional, but partly in their intellectual faculties”. (Darwin, 1871/2009a, p216.)
- ⁶ Diamond, 2005, p19. Indeed, as Diamond goes on to note, “In Japan and many other countries, such explanations are still advanced publicly and without apology”
- ⁷ *ibid*, p25, emphasis in original.
- ⁸ *ibid*, emphasis added.
- ⁹ Singer, 1999, p6.
- ¹⁰ Wilson, 1978/2004, p50, emphasis added. In a similar vein, science writer Nicholas Wade notes how the diverse changes in human social organisation in only the past 15,000 years (such as the advent of agriculture in some regions but not others) would have forced people to adjust to new sets of environment: “Societies come in many forms, and each may have punished or rewarded different character traits.” In arguing that this likely resulted in divergent genetic evolution between different groups, Wade points out that “[g]enomes adapt to current circumstances or perish; the human genome is unlikely to be an exception”. (Wade, 2006, p178.) Human evolutionists Gregory Cochran and Henry Harpending similarly argue: “Populations that experienced different ecological histories had different evolutionary responses.” (Cochrane & Harpending, 2009, p90.
- ¹¹ Kitcher, 2007, p293.
- ¹² Singer, 1999, p18.
- ¹³ *ibid*, p61.

¹⁴ Robson & Harris, 2007, p33.

¹⁵ *ibid.*

¹⁶ This is the main purpose of *Hauora*: that is, to provide the information necessary to tackle the glaring reality of poor health outcomes for Maori. As hauora (health) advocate Gwen Tepania-Palmer says in her foreword: “Reality ... is what the *Hauora* Maori publications have dealt in since their original release and that reality has sometimes been grim: evidence of unequal treatment, [and] lack of access contributing to health inequalities.” (Robson & Harris, 2007, p1i.)

¹⁷ Robson & Harris, 2007, p4.

¹⁸ *ibid.*, pII, emphasis added.

¹⁹ *ibid.*, p6, footnote.

²⁰ e.g., Cochrane & Harpending, 2009; Mallon, 2010; Wade 2006.

²¹ The confusion and ambiguity about the term ‘race’ in *Hauora*’s real-world example reflects on-going debate at the more abstract philosophical level. For instance, in an overview of contemporary academic discussion of the concept of race, philosopher Ron Mallon identifies at least four positions: *racial naturalism*, *racial population naturalism*, *racial scepticism* and *racial constructivism*. (Mallon, 2006.) Elsewhere, Mallon suggests that “the single most important issue in the philosophy of race is whether and to what extent racial language and thought should be reformed or abandoned”. (Mallon, 2010, p285.) Note that, according to Mallon, the main debate is *not* about possible biological aspects of race; the assumption being that these relate only to superficial differences in appearance between different peoples.

²² Hardimon, 2003, p451, emphasis in original.

²³ *ibid.*, p454.

²⁴ *ibid.*, p453.

²⁵ *ibid.*, p455. Hardimon goes on to say: “The concept is indelibly stained by its history and associations. To use the word ‘race’ is to run a series of risks: the risk of being misunderstood, of drawing unwittingly upon the concept’s racist development, and perhaps even of inadvertently providing racism with some modicum of support. These risks, however, cannot be avoided since the fact of racism means we must talk of race. The lesson to be drawn here is that we need to learn to navigate with a concept that is indelibly stained and ineluctably hazardous. This burden, itself a legacy of racism, comes with the territory.”

²⁶ Hardimon, 2003 p455, emphasis in original.

²⁷ Philosophers Massimo Pigliucci and Jonathan Kaplan similarly highlight how the “folk conception” of race is “politically and socially loaded” – although, contra to Hardimon, they go on to suggest “that avoiding the term ‘race’ with respect to the human case would be advisable in order to prevent confusion”. (Pigliucci & Kaplan 2003, pp1161-1162.)

²⁸ In addition, in the case of Maori and other indigenous peoples, Hardimon’s definition, by emphasising ancestry and aboriginal origin, avoids the problem of treating race as solely a social construct.

²⁹ e.g., Gannett, 2004; Kitcher, 2007.

³⁰ Hacking, 2005, pp102-103. In *African Exodus: The origins of modern humanity*, anthropologist Chris Stringer emphasises the ‘skin deep’ nature of racial difference with a picture of “Arnold Schwarzenegger modified by a computer to look African-American” (Stringer, 1996, p182]. Stringer’s point, given our species’ relatively recent dispersal from Africa, is that we are all ‘Africans under the skin’ (his chapter title).

³¹ Kitcher, 2007, p293.

³² Hardimon, 2003, p448.

³³ In noting that the skulls of Fuegians, from the tip of South America, do not display the gracilization or thinning that occurred in other human populations during the Upper Paleolithic, Nicholas Wade concludes: “The Fuegians seem to be a case of genetic drift – a small isolated population developing its own special characteristics.” (Wade, 2006, p176.) And drift similarly accounts for the distinct genetic

characteristics of the Icelandic population (a population, moreover, that has been isolated for less than a millennia). (ibid, p186.)

³⁴ Wade, 2006, p187.

³⁵ see Miller, 2000.

³⁶ Hardimon, 2003, p449, emphasis in original.

³⁷ ibid, p453.

³⁸ Pigliucci & Kaplan 2003, p1170.

³⁹ ibid, p1169.

⁴⁰ As Pigliucci & Kaplan note: “The problem posed by clines, then, is no different from that posed by any other gradual transition, and provides no reason to reject the possibility of the existence of biologically significant human races. Similar problems, after all, face any definition and practical application of the concept of species itself; nonetheless, biologists have not given up on the use of that most controversial biological category just yet.” ibid, p1169.

⁴¹ ibid, p1162.

⁴² Sesardic, 2010, p159. Indeed, Kitcher appears to pad out this particular ‘straw-man’ argument in even more detail than Sesardic suggests. For example, Kitcher argues: “Where the correlations [between crime and racial group] are sustained, where for example, young men with particular phenotypes are more likely to engage in criminal behaviour than young men with other phenotypes, nothing hangs on the phenotypes themselves, the textures and colors of skin and hair, nor on the distribution of alleles responsible for such traits.” (Kitcher, 2007, p310.) Again, Kitcher implies an improbable (and easily refutable) causal link between criminal behaviour, on the one hand, and skin or hair texture and colour, on the other.

⁴³ Sesardic, 2010, p160.

⁴⁴ Diamond, 2005, pp20-21

⁴⁵ see Kohn, 1995.

⁴⁶ Lynn, 1991; Rushton, 1997.

⁴⁷ Kitcher, 2007, p294.

⁴⁸ As, for instance, with Chris Stringer’s ‘in your face’ attempt to emphasise a skin deep view of race with a ‘black’ Arnold Schwarzenegger.

⁴⁹ e.g., Cochrane & Harpending, 2009; Gill, 2000; Pigliucci & Kaplan, 2003; Sesardic, 2010.

⁵⁰ Gill, 2000.

⁵¹ ibid.

⁵² Pigliucci & Kaplan 2003, p1161.

⁵³ ibid, p1170.

⁵⁴ Sesardic, 2010, p157.

⁵⁵ Hardimon, 2003, p454.

⁵⁶ Segerstrale, 2000, p223.

⁵⁷ In fact, the modern disquiet over human evolutionary biology extends even to the supposedly objective scientific analysis of hominid prehistory. For instance, as paleoanthropologist Richard Klein notes: “To some archeologists, cataloguing the behavioral differences between Neanderthals and Cro-Magnons [early modern humans] smacks of Neanderthal-bashing, a kind of paleo-racism that all caring people should resist.” (Klein, 2002, p191.) Human evolutionists Gregory Cochrane and Henry Harpending, in suggesting that Neanderthals were “competitively inferior to modern humans”, similarly deride the “charmingly goofy criticisms” of this very idea: “It has been suggested that such a position is racist. Somehow, saying that a population that split off from modern humans half a million years ago ... had some kind of biological disadvantage is beyond the pale, even though we’re here and Neanderthals are not.” (Cochrane & Harpending, 2009, p28.)

⁵⁸ Stringer, 1996, p182.

⁵⁹ e.g., Cochrane & Harpending, 2009, p15; Stringer, 1996, p82.

⁶⁰ Ridley, 1993, p12.

⁶¹ e.g., Cosmides & Tooby, 1997.

⁶² Gould, 2000.

⁶³ e.g., Cochrane & Harpending, 2009; Wade, 2006.

⁶⁴ Indeed, Cochrane & Harpending speculate that this genetic change allowed Indo-European peoples to displace other populations in Europe and West Asia: “the advantage driving those Indo-European expansions was biological – a high frequency of the European lactose-tolerance mutation (the 13910-T allele)”. (Cochrane & Harpending, 2009, p181.)

⁶⁵ Stringer, 1996, p116.

⁶⁶ Furthermore, chimpanzees and gorillas, despite their greater genetic diversity, are assumed to have changed far less than humans since our species diverged; thus, presumably, much of the genetic difference between separate gorilla or chimpanzee populations is neutral genetic ‘noise’.

⁶⁷ Pigliucci & Kaplan, 2003, p1165, emphasis in original. Indeed, relatively minor genetic changes may have propelled our species on an entirely different trajectory from our primate cousins. For example, compared to other primates, human infants are born ‘prematurely’, with the resultant period of dependency allowing the human babies’ brains to continue to grow and develop outside the womb. This paedomorphism (the extension of juvenile characteristics into later life) is a distinguishing feature of our species – yet, according to Matt Ridley, the evolutionary transition from ape-like hominids into human beings “was a simple matter of changing the genes that affect the rate of development of adult characteristic”. (Ridley, 1993, p316.) Interestingly, paedomorphism is also believed to have brought about the bonobos’ genetic *and* behavioural divergence from common chimpanzees. (Pinker, 2011, p39.) Once again, seemingly small genetic changes (say, switching particular genes on or off) having major consequences.

⁶⁸ Cochrane & Harpending, 2009, p110. Science writer Nicholas Wade similarly argues that greater submissiveness and reduced aggression were likely selected in increasingly hierarchical agricultural societies. (Wade, 2006, especially Chapter 8.)

⁶⁹ Cochrane & Harpending, 2009, p67. They argue, for example, that the psychological traits underlying the ‘bourgeois virtues’ of deferred gratification, hard work and thrift were selected for in those populations that early adopted agriculture and sedentism. (2009, especially Chapter 4.)

⁷⁰ *ibid*, p122.

⁷¹ Pinker, 2011, p614.

⁷² *ibid*, p619.

⁷³ *ibid*, p621.

⁷⁴ Pigliucci & Kaplan 2003, p1168.

⁷⁵ e.g., see Mallon, 2006.

Chapter 10

¹ quoted in Malik, 2008, p2.

² e.g., McKie, 2007.

³ Malik, 2008, p2

⁴ For example, Rushton unashamedly rejects the standard social science belief that deprived environments bring about poor social outcomes: “The argument that poor social and economic conditions are responsible for the lower intelligence of the Negroids [i.e., black Africans] places the cart before the horse. It assumes that the impoverished environments are simply the result of external circumstances over which people have no control.” (Rushton, 1997, p197.)

⁵ Kohn, 1995, p139.

⁶ e.g., Nyabola, 2011.

⁷ Kanazawa, 2006.

⁸ *ibid*.

⁹ *ibid*.

¹⁰ Kitcher, 2007, p306.

¹¹ *ibid*, p307, emphasis in original.

- ¹² *ibid.*
- ¹³ *ibid.*, p108.
- ¹⁴ e.g., Bennetts, 2006.
- ¹⁵ e.g., Chapman, 2009.
- ¹⁶ Indeed, the term ‘warrior gene’ was originally coined by a science journalist ‘sexing up’ genetic research in exactly the way condemned by Kitcher. (See Hook, 2009.)
- ¹⁷ Lea & Chambers, 2007.
- ¹⁸ Bennetts, 2006.
- ¹⁹ Lea & Chambers, 2007.
- ²⁰ As biochemist G. Raumat Hook cautions in the ‘warrior gene’ case, people may be led to the conclusion that “being Maori [is] just another disease”. (Hook, 2009).
- ²¹ Kitcher, 2007, p308.
- ²² *ibid.*, p307.
- ²³ Jared Diamond points out the detrimental consequences of failing to openly debate the causes of racial inequality: that while we are “taught that it’s not polite to say so in public”, in private people may come to question the prevailing environmentalist explanations for inequality, especially if the latter fail to adequately account for “glaring and persistent” racial disparities. (Diamond, 2005, p25.) If people lose faith in current political policies aimed at addressing inequality, and come instead to believe questionable biological explanations, they could, potentially, come to accept racist ‘solutions’ to these seemingly intractable problems.
- ²⁴ Kanazawa, 2006.
- ²⁵ Flynn, 2008, pp69-70.
- ²⁶ e.g., Mayer, 2009.
- ²⁷ Kitcher, 2007, p301.
- ²⁸ Interestingly, investigation of prehistoric human migration patterns is an example of the sort of genetic research that Kitcher believes may have to be abandoned; in his view, the significance of understanding human migration is something conferred by us, and in principle “we might discover, on reflection, that it is not something we need to know, and, if that were to occur, then the enterprise ... would lose its pragmatic rationale”. (Kitcher, 2007, p306.) To the extent that merely satisfying scientific curiosity may unintentionally revive harmful social beliefs about race, Kitcher has a point; however, Kitcher here also downplays the possible benefits of a deeper understanding of the present-day distribution of our species – especially if it provides useful information about differences in the prevalence of disease. By contrast, a ‘positive’ pragmatism, rather than starting from the ‘negative’ position that all such research is potentially deleterious, would instead focus on deriving positive benefits from appropriate genetic research.
- ²⁹ According to Diamond, for example, perhaps 90% of the indigenous population of the Americas was wiped out by introduced diseases, before the European ‘conquest’ proper had even begun. In Australasia, the devastating effects of disease were noted by the young Charles Darwin, aboard *HMS Beagle*, and later used in his gloomy predictions of the fate of the ‘less-favoured’ races in *The Descent of Man*.
- ³⁰ Merriman & Dalbeth, 2011.
- ³¹ *ibid.*
- ³² *ibid.*
- ³³ *ibid.*

Chapter 11

- ¹ Rushton, 1997, p197.
- ² e.g., Pinker, 2003, pVIII; Rushton, 1997, pXIV. See also Barash, 1995. Philip Kitcher’s dismissive epitaph “ogre naturalist” is relatively mild. (Kitcher, 2007, p293.)
- ³ Rushton, 1997, pXV.

⁴ *ibid.*, p257.

⁵ e.g., an internet search of Rushton and *Race, Evolution, and Behavior* produces immediate links to far-right websites.

⁶ Rushton, 2000, p46.

⁷ *ibid.*

⁸ *ibid.*, p35.

⁹ *ibid.*, p82.

¹⁰ see Hrdy, 1999.

¹¹ Chisholm & Burbank, 2001, p207, emphasis in original.

¹² *ibid.*

¹³ *ibid.*, pp207-208.

¹⁴ This more nuanced evolutionary approach to human reproduction could also account for similar patterns of behaviour in widely separated and racially distinct human societies – for instance, that evolved responses to similar socio-economic conditions (poverty, political instability, and so on) may be an important contributing factor to the high birth-rates/lower life expectancy in places as racially different as Palestine, Bangladesh or Melanesia, or of similarly high birth-rates/lower life expectancy in poorer suburbs of cities as widely separated as New York or Auckland or Rio di Janeiro.

¹⁵ e.g., RNZ, 2008.

¹⁶ Indeed, according to Flynn (personal communication), this applies to all black communities, regardless of socio-economic status.

¹⁷ RNZ, 2008.

¹⁸ Flynn also points to the historical example of Irish immigrants, in which the male/female sex ratios matched that of present-day black communities; however, in the historical case of Irish women, they were more able to marry outside their ethnic group (to wed Germans, say, or Swedes, or if desperate, as Flynn jokes, even Englishmen) than their contemporary black counterparts.

¹⁹ Editorial, 2008.

²⁰ Gill, 2000.

Chapter 12

¹ Singer, 1999, p41.

² *ibid.*

³ *ibid.*, p40.

⁴ *ibid.*, pp40-41.

⁵ *ibid.*, p41, emphasis added. This point is worth emphasizing – especially as political ideology (say, that of libertarians, on one side of the political divide, or that of socialists, on the other) often insists on a ‘one size fits all’ approach to human social or economic behaviour. Libertarians, for instance, focusing on the ‘virtue’ of self-interested human behaviour, can point to the failures of Soviet-style central planning as an argument for why an unregulated free market is the *only* way to match society to human nature. (Indeed, to those libertarians influenced by writer Ann Rand, self-interested ‘ethical egoism’ is itself the core of moral behaviour, with altruism an undesirable and destructive human tendency.) For ‘blank slate’ socialists, by contrast, the very idea of using self-interest as an incentive would be counter-productive – that is, it would simply reinforce the undesirable social conditions in which greed thrives. Thus, to the idealistic left (i.e., that dismissive of the idea of a fixed human nature), the short-term inefficiencies of state monopolies could be a price worth paying for the longer-term benefit of fostering desirable pro-social behaviour.

⁶ Singer, 1999, p42.

⁷ *ibid.*

⁸ *ibid.*, p43.

⁹ *ibid.*, p42.

¹⁰ e.g., Ridley, 1996, pp89-90.

¹¹ At a more abstract level, both socialism and capitalism tap into important human traits. But the fact that, in practice, capitalism triumphed while socialism failed, says nothing about the underlying importance or value of these traits to human well-being and fulfillment. However, and to repeat Singer's central refrain, it does suggest that any viable 'socialist' alternative must be based firmly on an open-minded appreciation of human nature.

¹² Singer, 1999, p44.

¹³ *ibid*, p45.

¹⁴ *ibid*.

¹⁵ *ibid*.

¹⁶ *ibid*. This argument is also central to *The Spirit Level: Why greater equality makes societies stronger* (2011) by public health researchers Richard Wilkinson and Kate Pickett – that despite rising affluence, widening inequality can bring with it poorer physical and emotional well-being.

¹⁷ Ridley, 2012.

¹⁸ Of course, this is not to imply that females are not also competitive or status-conscious, but rather (if the standard evolutionary analysis is correct) that such tendencies are likely to be more pronounced in males. Thus, if we want to change the current competitive society into a more cooperative one, a better understanding of evolved male tendencies, and of how these contrast with evolved female ones, could provide a relevant source of information relevant – as illustrated, for example, by Matt Ridley's evolutionary-informed defence of affirmative action to increase women's participation in politics. (Ridley, 1996, p255.)

¹⁹ Singer, 1999, p58.

²⁰ *ibid*.

²¹ Pinker, 2011, p528.

²² Miller, 2009, p1.

²³ *ibid*.

²⁴ *ibid*, pp328-329.

²⁵ *ibid*, p328. Miller's earlier work, *The Mating Mind* – an influential study of the role that sexual selection may have played in the evolution of the human brain and of our creative tendencies (such as art, music and humour) – reaches similar conclusions, though in a more explicitly political vein. For instance, in an argument that could come straight from *A Darwinian Left*, Miller argues that “Marxists, feminists, artists, and saints have long understood that human intelligence, creativity, kindness, and leadership can be displayed in many ways other than by climbing economic status hierarchies to acquire material luxuries”, and that it is up to us “to design social institutions that reap maximum social benefits from individual instincts for sexual competitiveness”. (Miller, 2000, p430.)

²⁶ Singer, 1999, p46.

²⁷ *ibid*.

²⁸ *ibid*, p47.

²⁹ *ibid*, p49.

³⁰ *ibid*, p50.

³¹ *ibid*, p51.

³² *ibid*, p52.

³³ *ibid*, pp52-53.

³⁴ *ibid*, p52.

³⁵ *ibid*, p57.

³⁶ *ibid*.

³⁷ e.g., Orbell & Morikawa, 2011.

³⁸ Indeed, in the case of male Muslim suicide bombers there is also the promise of reproduction in paradise (i.e., the willing virgins supposedly awaiting a martyr). Importantly, even the religious impetus panders to aspects of our evolved psychology.

³⁹ Singer, 1999, p58.

⁴⁰ *ibid*, p59.

- ⁴¹ Miller, 2009, p329.
⁴² Miller, 2000, p430.
⁴³ Arnhart, 2005, p18.
⁴⁴ *ibid*, p16.
⁴⁵ *ibid*, p4.
⁴⁶ Dawkins, 2009, pp359-362.
⁴⁷ Dawkins, 1985.
⁴⁸ Dawkins, 1976/1989, p201.

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