**Michael Ruse & Robert J. Richards, eds.** *The Cambridge Handbook of Evolutionary Ethics*. Cambridge University Press 2017. 342 pp. \$93.99 USD (Hardcover ISBN 9781107132955); \$29.99 USD (Paperback ISBN 9781107589605).

This excellent collection focuses on three major approaches in current academic philosophy to the question of the relationship between ethics and human evolution. Perhaps a bit more than is usual in edited volumes of this type, it is constructed around the particular interests and philosophical proclivities of editors Michael Ruse and Robert J. Richards. This is a strength in that Ruse and Richards can afford the space to provide an historical perspective of how the debate in which both are avid participants came to take shape, and to present different arguments by multiple philosophers defending a limited set of competing positions. It is a weakness in that the contributors too often refer to each other, and thus allow themselves to neglect too many important contemporary philosophical perspectives on this topic, as well as the insights and discoveries of many scientists and scholars outside of philosophy departments which could (and should) inform their arguments.

Part I traces how the publication of Charles Darwin's On the Origin of the Species (in 1859) and The Descent of Man (in 1871) affected academic moral philosophy. With the exception of Naomi Beck's discussion of Friedrich von Hayek (Chapter 4), this section directly addresses the interests of the editors and thus works effectively as a springboard to what comes after. Lillihammer (Chapter 1) shows that Anglophone philosophers through much of the twentieth century 'explicitly responded to' evolutionary approaches to ethics and, for the most part, 'turned away from them on the basis of what they thought of as decisive arguments' (15). Several of these arguments are revived and updated in Part III. In the meantime Jeffrey O'Connell (Chapter 2) explores Friedrich Nietzsche's loathing of evolutionary theory, while Trevor Pearce (Chapter 3) wades through the more ambivalent reception Darwin's ideas found among American pragmatic philosophers. Pearce and Abraham Gibson (Chapter 5) pay special attention to the competition between Darwin's and Herbert Spencer's very different conceptions of evolution. Unlike Darwinism, which is decidedly non-teleological, the Spencerian view highlights the 'correspondence between organism and environment' and envisions an ever-improving natural world in which '[m]ore evolved species ... are able to meet a wider and more complicated set of environmental challenges' (45). Spencer was, as Gibson points out, 'the most widely read philosopher in the United States through the second half of the nineteenth century' (74). Yet, 'mastery of the atom' and the discovery of DNA 'accelerated the biological sciences' wholesale shift towards reductionism' (80) and with it Darwinism's rise to hegemonic supremacy.

As Ruse points out in his contribution (Chapter 6), which opens Part II of the book, Spencer's ideas remain influential among ecologists such as Rachel Carson and James Lovelock (89), as well as many philosophers, writers, and artists. He even taunts his coeditor Richards for being a Spencerian (90), a charge that Richards good-humoredly rejects as 'the product of a long day in the sun' (5). Yet the question is of paramount importance to metaethical debates about moral justification and indeed about the nature of morality itself. 'The world after Darwin,' declares Ruse, all too rightly, 'is very different from the world before Darwin' (89). If one accepts Darwin's theory of evolution through natural selection as fact – and how can one not, given the heaps of extant evidence in support of it, not least of which is the entire field of genetics? – then one must confront its implications: evolution is purposeless and directionless, a product of uncountable random mutations and fortuitous, transient conjunctions between species and environments. There is no place for intentionality in the Darwinian world, neither divine nor natural intentionality, no place for spirit or soul or élan

vital, no place for value or meaning, for good or bad or right or wrong. If, as the biologist and frequent Ruse collaborator E.O. Wilson puts it, a living organism is just 'DNA's way of making more DNA' (82), then human morality is at best relegated to secondary, epiphenomenal status. 'Substantive morality has no backing,' says Ruse. It is 'an illusion of the genes put in place by natural selection to make us good cooperators' (98), because it just so happened millions of years ago in the savannahs and forests of Africa that cooperation proved to be an effective way for pre-human primate DNA to continue to produce more DNA.

Ruse, Richard Joyce (Chapter 7), and Justin Horn (Chapter 8) all make their cases for this position, which is collectively known in the literature as Evolutionary Debunking Arguments (EDA). The rest of Parts II and III are dedicated to various attempts to counter EDA. These fall into two camps. The first claims to accept the findings of Darwinism but still reject that these conclusively debunk any and all solid foundations for morality. 'We should thank evolutionary naturalism,' states Richard A. Richards (Chapter 9), 'for revealing unjustified assumptions about moral absolutes' (130). In his view, however, naturalism only debunks morality if 'we predicate goodness or badness as a simple property of things.' We should keep in mind, rather, the relational nature of moral claims: 'Things are not simply good or bad; they are good or bad in relation to ways of mattering, subjects, and contexts' (141). Richards (Chapter 10), the book's coeditor, offers a coherent proposal for a conception of morality founded on Darwinian naturalism that can nevertheless claim to rest on solid foundations. It is pointless to try to discover morality in 'a set of propositions chiseled in stone and lying on a mountaintop – ontologically objective entities' (150). Morality only need have 'the sanction of intersubjective affirmation,' which is possible because 'the altruistic instinct needs the guidance of rational considerations' (144). Certain propositions, of course, must be taken as axiomatic: that 'humans have evolved to be altruists;' that the 'fundamental principles of morality' such as the Categorical Imperative and the Golden Rule 'can be reduced to altruism;' that 'evolution has instilled in humankind the social instincts' (156). 'As a result of our moral and rational capacities,' Richard concludes, 'we make claims and formulate principles based on these capacities, which ... are objective and universal. That is simply who we are as human beings' (157).

As representatives of alternative versions of evolutionary ethics, both Ruse and Richards, as well as many of their collaborators, 'endorse Darwin's assumption of an innate attitude toward cooperation' (144). They seem to believe this cooperative instinct is enough to derive something akin to our modern liberal conception of morality. To a surprising degree, the book ignores ethical in favor of metaethical disagreements. Ruse makes a point of reassuring readers that his evolutionary ethics will not upend conventional ethical norms. 'I don't think there is much cause for concern or special thinking,' he claims, since 'common sense morality – help others, try to avoid cheating by yourself and others, and so forth' (92) – is sufficient. Richards only disagrees because he thinks this common sense must be directed by rational consideration. Neither seriously considers any moral system incompatible with ours yet in line with what we know about human evolution.

Even if it is true that humans are cooperative and at least potentially altruistic by nature, it is also widely understood that humans evolved to cooperate with the members of their own group while being wary of and aggressive towards members of other human groups. Ruse admits that 'at times strife and combat may be good adaptive strategies' (91) while Richards recognizes the 'tribalism' (143) long ingrained in human sociality. Cooperation and reciprocity may be natural and innate, but claims that all men are created equal or that all are endowed with inalienable rights are by no means self-evident truths. Is there any way for evolutionary ethics, either Ruse's or Richards' version, to uphold them? Ben Fraser (Chapter 11), the most radical of the debunkers in the volume, is the only one to answer in the negative. He proposes, in fact, that morality is 'in important respects like our

evolved "sweet tooth": useful in ancestral environments but potentially harmful in our much different modern context' (158) and should be done away with. His argument is, however, wholly ignored by the rest of the authors in the book.

Part III introduces the second camp in opposition to EDA, and the third vertex in the volume's theoretical triangle. The authors in this section all advance some form of moral realism – 'the view that morality is stance-independent' (114). Russ Shafer-Landau (Chapter 12) contends that 'it is highly implausible to suppose that all of our justified moral beliefs are a causal product of ... doxastically discriminating evolutionary pressures' (178), and therefore demands that even Darwinians consider the possibility that there is more to morality than survival and reproduction. This realist position is best articulated by William Fitzpatrick (Chapter 13). 'We can take the scientific perspective seriously,' he states, 'without neglecting or discounting the "internal" perspective we also occupy as engaged and committed moral agents' (190): 'precisely because of our reflective capacities, we are not merely slaves to the genetic imperatives built into our evolved human nature.... With the emergence of rationality and moral agency we acquire also the ability to step back from such evolved dispositions and to subject them to evaluative reflection in light of our best culturally developed conception of what is truly worthwhile and appropriate in life' (194-5).

The debunkers, led by Ruse, deny that any amount of reflection will ever produce objective moral truth. Many of them bring up a famous thought experiment of Darwin's, who wonders what morality would look like had humans evolved not as social primates but as 'hive-bees.' If human nature were fundamentally different, then our moral imagination would be completely different as well (93, 130, 151, 190, 234). It is a pity that so many of these authors use the same example when there are so many fascinating visions of alternative human and alien natures in imaginative literature and science fiction. It is also interesting that none of the debunkers refer to the extensive literature produced by primatologists, which compare non-human primate societies to their human counterparts and find extensive similarities. Much evidence is to be found there that the bases of morality are not the result of evaluative reflection. Neither is there a mention of decades' worth of studies by experimental psychologists, which purportedly show that rationality and moral agency are much less in charge of human beliefs and actions than the Enlightenment philosophers once imagined.

Proponents of realism, however, have their own ace to play. If evolution, they contend, merely programmed humans to think they are moral agents, when in fact they are merely self-replicating vessels of DNA, then how come the human mind has been able to produce/discover the truths of mathematics? If mathematical truth is objectively true, then the possibility at least exists that moral truth may be also (98, 183, 198, 208). Ruse dismisses this objection with uncharacteristic flippancy, musing that 'at most (and at least), mathematics has to be something like relations between objects or some such thing' (98). The truth is that, much like his opponents, he really does not know. Nevertheless, it must be admitted that Ruse's band of debunkers have much of the empirical data on their side, while realists such as Michael Vlerick (Chapter 16) must presuppose a lot – 'our moral beliefs and norms go radically beyond and even against the evolutionary raison d'être of the faculties and dispositions from which they emanate' (227), or 'most cultures have extended the scope of beneficiaries of our moral consideration and altruism from the small tribe ... to the whole of humanity and even beyond' (228) – to keep their arguments afloat.

The last section of the book offers additional 'elaborations,' which, perforce, do not fit as neatly with most of the preceding chapters. Of note is that Michael Peterson's closing essay of the collection (Chapter 19) is the first, and only, in which the philosophical naturalism on which Darwinism and all of modern science rests is ever cast into any doubt. Most scientifically inclined

philosophers may find Peterson's theism unpalatable, but a chapter by an agnostic critic of naturalism such as Thomas Nagel would have enriched an already fascinating volume.

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