

SORTING OUT PSEUDO-DARWINISMS

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THE WORD *DARWINISM* NOW SERVES AS THE NAME OF AN IDEOLOGY, A POLITICO-SPIRITUAL-MORAL STANCE WHICH CAN READILY BE USED AS A BATTLEFIELD.

Considering how much trouble that Darwin himself took to prevent this happening, today's rows may seem a little surprising. But, of course, they are nothing new. The Athenians prosecuted Anaxagoras for impiety when he suggested that the sun might really be just a red-hot stone, and we all know what happened to Galileo.

Nor are these connections just accidental. The truth is that science never is really distinct from the rest of thought. Scientists, being human, naturally draw their background assumptions from the life around them. In every age they take for granted large ideas which seem obvious at the time, and they sometimes find it natural to see these as scientific truths. Not surprisingly, the bystanders then pick up resonances from what they say. Thus Newton welcomed certain apparently miraculous aspects of his theory, such as his view on gravitation, because he thought they provided extra proofs of God's existence. And, with equal confidence, today's Dawkinsians welcome Darwin's view on evolution as proving the exact opposite. But since these points are not really physical doctrines at all, they cannot be discussed in terms of the physical sciences. They need different conceptual tools.

This entanglement with religion has not, of course, been the first ideological twist to overtake Darwin. Social Darwinism – the direct application of 'natural selection' to contemporary human affairs – sprang up already in his own day. This idea, which is still influential, should really have been called Spencerism since it came from Herbert Spencer, but unluckily Spencer believed himself to be expounding Darwin. His message was that the 'survival of the fittest' – a phrase he invented – was both the right, and, indeed, the only possible pattern of evolutionary development. It ought therefore to be imposed in human life whenever, by some mischance, it failed to appear on its own. Thus, for instance, all organised charity to relieve the poor interfered with the cleansing work of natural selection and such activity was therefore merely misguided self-indulgence: 'The whole effort of nature is to get rid of such, to clear the world of them, and to make room for better ... If they are sufficiently complete to live, they do live. If they are not ... they die, and it is best that they should die.'¹

Spencer preached this doctrine throughout the United States during the 1880s, with such effect that he

outsold every other philosopher there during that decade. It also became influential in Germany, where the great biologist Ernst Haeckel promoted it – again, under the impression that it was part of Darwin's own doctrine. This led German military theorists to use Darwinism as a justification for aggressive foreign policy during the First World War. And the news of that propaganda, which was widely reported in America at the time, thoroughly blackened Darwin's reputation there, leading, among other things to the Scopes Monkey Trial in 1928.

Today's neo-Darwinists officially dissociate themselves entirely from Social Darwinism. And it's quite true that they don't apply their arguments to current political problems. This restraint, however, comes of their having moved away from politics to the still more exciting sphere of metaphysics. Here they claim that competitive natural selection is the prime explanatory principle for every kind of process – biological (through genes), social (through memes), and perhaps also even cosmological. (Peter Atkins explains, in *The Creation*,² that the Big Bang itself resulted from competition – within the previous nothingness – between various rival possibilities, the fittest of which eventually prevailed and became real.) Thus the destructive effect of competition is, as Daniel Dennett puts it in *Darwin's Dangerous Idea*,³ a 'universal acid', a kind of explanation that supersedes all other major thought-patterns.

This new outlook has, as they explain, drastic consequences for all of us, consequences by no means confined to religion. As Richard Dawkins says in *The Selfish Gene*, Darwinism has taught us that '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?'⁴ And in expounding the ideas that we can use instead, these theorists display a one-sided, melodramatic, fatalistic insistence on the bloody-mindedness of life – a trait which actually links them quite closely to the earlier Social Darwinists. It is none too clear, either, why they do not think that a belief in entities such as memes or possibilities jousting in space before the dawn of time is superstitious.

Before tracing these flights, however, we should perhaps contrast them briefly with Darwin's own much more modest program. Darwin carefully avoided all vast metaphysical and moral speculation – not just because he feared controversy but because he thought the world was genuinely mysterious and our knowledge of it extremely limited. And he used the idea of *selection*

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solely to explain biological evolution, never suggesting for a moment that it should be used anywhere else. Even within that biological sphere, he emphasised that he did not think it was *the sole cause* of evolutionary change. He expressed sharp irritation in his *Autobiography* at the way in which people kept ignoring his repeated denials on this point – a tendency which only shows how hard readers have found it to take in the full originality of his doctrine.

He added that he did still think selection was the main cause. This is not surprising since he had just discovered it, and no other possible causes had yet been suggested. But it is clear that he saw how inadequate this one negative cause was to shape the whole huge positive development. He always remained interested in the Lamarckian idea of inheritance of acquired characteristics, although he saw its problems, because it might possibly offer something to fill this gap. And when he said that thinking about the problem of the peacock’s tail made him feel physically sick, he was clearly expressing his sense of this *disproportion* – of the need to find other contributory causes.

Scientists today are beginning to do this, for instance, by considering the quite limited range of development that is open to molecules when they start to form into living cells, or to particular species when they need to change. These investigations make it plain that the workings of natural selection are not in the least like the model of ‘blind chance’ – or as Jacques Monod put it, the ‘casino’ – that is cited by modern neo-Darwinians. And there seems little doubt that Darwin himself would have been pleased to join them in these enquiries.

So what, by contrast, is the neo-darwinistic meaning of life? In *River out of Eden*, which he has firmly subtitled ‘A Darwinian View of Life’. Richard Dawkins expounds its essence: ‘In a universe of blind physical forces and genetic replication, some people are going to get hurt, other people are going to get lucky, and you won’t find any rhyme or reason in it, nor any justice. The universe we observe has precisely the properties we should expect if there is, at bottom, no design, no purpose, no evil and no good, nothing but blind, pitiless indifference. As that unhappy poet A.E. Housman put it; “For Nature, heartless, witless Nature, Will neither care nor know.” DNA neither cares nor knows. DNA just is. And we dance to its tune.’⁵

This passage mixes an officially impersonal, objective scientific account with an unbridled mythical melodrama to very strange effect. On the impersonal

side, all that needs to be said is that physical science does not deal in questions of meaning and value, so it naturally has nothing to say about the point or purpose of life. What Dawkins is claiming here, however, is that science has proved that there is no such point or purpose.

If this were right, the lesson that we are said to have learnt from *On the Origin of Species* would be that life is meaningless. But the latter part of this manifesto tells us, even more surprisingly, that life does indeed have a meaning – a horrible one. Here the story is dramatised to suggest that an omnipotent Fate-figure, DNA, who is not impersonal but actively malicious, is actually in charge. The phrase ‘pitiless indifference’ only makes sense if it describes a conscious being who is capable of pity and fails to feel it when he ought to. Like the constant talk of ‘ruthless selfishness’ in *The Selfish Gene*, this language builds a colourful picture of a callous, manipulative demon in whose hands humans are helpless. Without that meaning, the idea of playing a tune that others must dance to would have no sense at all.

In case this story upsets his readers, Dawkins does occasionally tell them that he doesn’t mean a word of it. Thus, at the beginning and end of *The Selfish Gene* (pp. 3 and 215) he explains that actually we can resist this demon quite easily any time that we want to. ‘We have the power to defy the selfish genes of our birth and, if necessary, the selfish memes of our indoctrination . . . We, alone on earth, can rebel against the tyranny of the selfish replicators’.⁶ Unfortunately, however, this free-will story is apparently only a mantra which (perhaps like the paternosters of mafia members) does not affect the doctrine of demonic rule, which continues to prevail everywhere else.

Why would a readiness to explain everything by natural selection bring anybody to such a doctrine? The trouble here surely comes from an unbalanced emphasis on the competitive, destructive side of the creative process at the expense of noticing its wider tendencies. As Brian Goodwin points out: ‘There is as much co-operation in biology as there is competition. Mutualism and symbiosis – organisms living together is a state of mutual dependence such as lichens that combine to form a fungus with an alga in happy harmony, or the bacteria in our guts, from which we benefit as well as they – are an equally universal feature of the biological realm. Why not argue that co-operation is the great source of innovation in evolution, as in the enormous

NOTES

1. H Spencer, *Social Statics* (New York, 1864), pp. 414–15.
2. Oxford: Freeman, 1981.
3. DC Dennett, *Darwin’s Dangerous Idea: Evolution and the Meanings of Life* (London; Penguin, 1995).
4. R Dawkins, *The Selfish Gene* (Oxford: Oxford University Press, 1976, 1989), p. 1.
5. R Dawkins, *River out of Eden: A Darwinian View of Life* (London: Weidenfeld & Nicolson, 1995), p. 133.
6. Dawkins, *Selfish Gene*, p. 215.
7. B Goodwin, *How the Leopard Changed Its Spots: The Evolution of Complexity* (London: Weidenfeld, 1994), p. 166.
8. P Davies, *The Goldilocks Enigma: Why the World is Just Right For Life* (London: Penguin, 2007).
9. *Ibid.*, p. 18.
10. *Ibid.*, pp. 302–3. Emphasis mine.
11. S Conway Morris, *Life’s Solution: Inevitable Humans in a Lonely Universe* (Cambridge: Cambridge University Press, 2003), pp. 21–113.

'Darwin carefully avoided all vast metaphysical and moral speculation'

► step, aeons ago, of producing a eukaryotic cell, one with a true nucleus, which came about by the co-operative union of two or three prokaryotes, cells without nucleus?⁷

Both factors are evidently active in the cosmos, just as they are in our own emotional nature, and Darwin's work dwells equally on both of them. He does indeed often make clear his horrified response to the presence of so much suffering in the world, as when he wrote to Hooker in 1856, 'What a book a devil's chaplain might write on the clumsy, wasteful, blundering low and horridly cruel works of nature!' And this problem of suffering was indeed a main cause of his disillusion with the rather naive kind of Christianity that he had been reared in. But it certainly never moved him to take anything like Dawkins's position that the cosmos contains 'no design, no purpose, no evil and no good'.

On the contrary, writing with evident care in his *Autobiography* he noted, 'the extreme difficulty, or rather impossibility, of conceiving this immense and wonderful universe, including man ... as the result of blind chance or necessity. When thus reflecting, I feel compelled to look to a First Cause having an intelligent mind in some degree analogous to that of man, and I deserve to be called a Theist.'

He added, of course, that he couldn't entirely trust this view because he knew that his intellect, which produced it, was a fallible product of the evolutionary process. But he knew that it shared this disadvantage with all the rest of his thought, and, of course, this tentativeness never led him to draw extreme and sweeping conclusions. As he wrote to several correspondents, including John Fordyce in 1879, 'I have never been an atheist in the sense of denying the existence of God.' In his *Autobiography* he wrote, 'The mystery of the beginning of all things is insoluble by us and I for one must be content to remain an Agnostic' and clearly he used that word, not as a euphemism but in its proper sense.

As for the concept of purpose, anyone who wants to know how scientists treat it today should read the last chapter of the cosmologist Paul Davies's excellent book *The Goldilocks Enigma*.⁸ Davies describes the problems that recent discoveries about the fine-tuning of the universe – the striking coincidences which make possible the vastly improbable development of life within it – pose to physicists. And at the end, he lays out the various ways in which they now react to these.

Ordinary people, as he points out, will naturally ask whether all this suggests that something purposive is going on, but official science has excluded such a possibility for so long that many aren't going to look at it now. Thus, when Steven Weinberg declared that, 'the more the universe seems comprehensible, the more it also seems pointless' he came in for some flak from his colleagues – not for denying purpose but for even asking about it.⁹ But anyone who looks through the available alternatives which Davies scrupulously lists – including the seemingly very extravagant 'multiverse' – may find this attitude surprisingly casual. After weighing them, Davies himself concludes, citing the agreement of several eminent colleagues, 'It seems to me that there is a genuine scheme of things – the universe is "about" something. But I am equally uneasy about dropping the whole set of problems in the lap of an arbitrary God, or abandoning all further thought and declaring existence ultimately to be a mystery ... Even though I do not believe Homo Sapiens to be more than an accidental by-product of haphazard natural processes ... I do believe that *life and mind are etched deeply into the fabric of the universe*, perhaps through a shadowy, half-glimpsed life-principle.'¹⁰

Among biologists, Simon Conway Morris has expressed similar views, reasoning that the remarkable convergences which different life-forms show towards similar solutions are evidence for a purposive movement, and that only dogmatic habit prevents scientists from recognising this. As he says, 'Some cosmologists like to speculate that the universe is designed to be the home of life, to which some biologists might add, "Yes, and not only that but we have a pretty shrewd idea of what was on the cards" [namely intelligence ... We need to ask] if some of our predecessors who saw their religious faith either ebb or haemorrhage were both misinformed and over-pessimistic, and to enquire whether some common ground can be regained.'¹¹

This way of thinking does not, of course, put us back in Newton's position or do his job for him. But it surely does draw this whole topic away from the Cold War approach of science-versus-religion and lay it open for serious thought once more. ■