

# Why The Idea Of Purpose Won't Go Away

MARY MIDGLEY

## Abstract

Biologists' current habit of explaining each feature of human life separately through its evolutionary function – its assumed tendency to enhance each individual's reproductive prospects – is unworkable. It also sits oddly with these scientists' official rejection of teleology, since it treats all life as a process which does have an aim, namely, to perpetuate itself. But that aim is empty because it is circular.

If we want to understand the behaviour of living things (including humans) we have to treat them seriously as *subjects*, creatures with needs, tendencies and directions of their own. The supposedly objective idea of a *world of objects* without subjects is an unprofitable fantasy.

## Functions, Tastes and Likings

What is an evolutionary function and how does it work?

I noticed how confused current views about this are when I read a piece in the *Guardian*<sup>1</sup> about how entomologists hunt the impressive Purple Emperor butterfly. Apparently they must lay out its favourite diet, which is chiefly carrion and various kinds of faeces. The writer says that Victorian observers were distressed by these tastes in such a noble animal and 'observed these degraded moments with a morbid fascination. *For the emperor, however, it is not a question of taste.* It is thought that the males replenish themselves after mating with sodium and other chemicals from the rotting matter.'

Thus we see the conscientious butterfly holding its proboscis and sternly taking its nasty medicine to protect its dynastic future... And this is the sort of picture that constantly emerges from contemporary evolution-talk – a picture that mixes two quite different kinds of purpose. The butterfly's own subjective purpose concerns what it wants to do. But the possible effect on the survival of its species is an evolutionary function, of which the butterfly knows nothing.

<sup>1</sup> November 15, 2010, G2 Section

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It is not surprising that these two ideas get mixed today. Official scientific thought doesn't now try to distinguish between different forms of purpose, indeed it hardly recognises the concept of purpose at all. Subjective purposes – motives – were outlawed from science-speak by the behaviourists, along with the rest of our inner life. Though their effects are obviously real, these purposes were blotted out so successfully from the perception of the learned that many conscientious thinkers still don't dare to look at them. Instead, in a way that would have delighted B.F. Skinner, they still try to account for physical actions directly in physical terms. They pick out distinct behaviour-patterns and try to link each to an evolutionary function of its own, without reference to its meaning or its social context.

A recent controversy about the origins of nose-picking in humans showed the oddity of this. Since this habit is common, scientists suggested an amazing number of arcane physical mechanisms by which it might have directly improved people's survival-prospects. What nobody did was to ask about this habit's relation to *motives* – for instance to curiosity, to our tendency to explore and investigate things. Like other primates we like to pry into mysterious places such as holes and this interest surely has affected our species-survival in many ways, both helpful and otherwise. The details of the endless acts that it produces don't matter; what affects survival is the general interest. Human behaviour is not a ragbag of modules, disconnected behaviour patterns with separate evolutionary histories. *What evolves is an emotional constitution which shapes our lives as a whole.* We have to explain particular actions by finding their place in it.

Thus, when we want to understand a real person's action we always start by looking for the motivational context. We try to spot the particular reason for the act and then to place it on our general map of motivation – a map which we must all use as we try to find our way through everyday life. We ask, was that clumsy remark just a misplaced effort to be helpful? Did it express resentment? Was it even part of a spiteful scheme to make trouble? Or perhaps a bit of all three? It is, of course, highly confused to dismiss this interest in subjective matters as being somehow culpably subjective itself. It is not a fantasy, not just 'folk-psychology', not a crude, amateur substitute for scientific investigation but a necessary factual enquiry. It is the only way we can start to make sense of the life that goes on around us. Of course it's fallible, but on the whole it works and its success is one of the things that science needs to investigate. Evolutionary considerations are no substitute for it.

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### Why Talk?

Another interesting case concerns something more important than nose-picking – the origin of speech. Michael Gazzaniga considers the following problem which was raised by the evolutionary psychologist Geoffrey Miller:

Most speech appears to transfer useful information from the speaker to the listener, and it costs time and energy. It seems to be altruistic. What fitness benefit can be attained by giving another individual good information? Reviewing the original argument of Richard Dawkins and John Krebs, Miller states, “Evolution cannot favour altruistic information-sharing any more than it can favour altruistic food-sharing. Therefore, most animals’ signals must have evolved to manipulate the behaviour of another animal for the signaller’s own benefit.” And other animals have evolved to ignore them, because it didn’t pay to benefit the manipulators.<sup>2</sup>

Miller then asks how it can be that our species has managed to buck this trend by actually developing speech. His conclusion is [says Gazzaniga] that ‘language’s complexities evolved for verbal courtship. This solves the altruism problem by providing a sexual payoff for eloquent speaking by the male and the female’.

Marilynne Robinson, who quotes this jewel of speculation in her splendid book *Absence of Mind*,<sup>3</sup> points out how odd it is to credit *courtship* with having played such a crucial role in the history of our species, when we know that the tradition of human societies is to treat marriages as strictly family business, dealt with by the elders, not by the parties concerned. More centrally too, she remarks on the wildness of this approach in which ‘our nature is defined as if determined by the nature of hypothetical primitives, humanlike in their ability to have and give information, *but finding neither use nor pleasure in doing so*’.

The trouble is that theorists who think natural selection can only work by cut-throat competition between individuals pursue that pattern obsessively, without glancing at the social phenomena they are supposed to be explaining. Thus, Miller does not seem to have noticed that speech does not just convey separate bytes of

<sup>2</sup> Michael Gazzaniga, *Human; The Science Behind What Makes Us Unique*. (New York, Ecco, 2008), 107–9.

<sup>3</sup> *Absence of Mind; The Dispelling Of Inwardness From The Modern Myth Of The Self*. (Yale University Press, 2010), 45–6 (Emphasis Mine).

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information, to be carried home and secretly devoured in one's lair. Speech, along with the rest of communication, is a vital medium, an ambient ocean in which we all swim, a power which allows us to make a whole mass of essential social moves. As Wittgenstein remarked, we do not use it just for informing but for all kinds of interactions which are vital to our lives – 'asking, thanking, cursing, greeting, praying'<sup>4</sup>. Though these scholars presumably know, like the rest of us, that a direct wish for a special sort of interaction with other people constantly determines how we act they still believe that, behind this screen, there must lie hidden the real causes, elements of evolutionary advantage private to ourselves. However hard that advantage may be to find – however little possibility there may be that any evidence could reveal it – it is still the real McCoy.

### The Sociobiologist's Treadmill

Thus the real point and value of life is held to lie in its producing more life - life which will exist only in order to repeat the process, much like those unlucky people who only know how to make money and never learn how to spend it. This strange one-legged kind of teleology allows no ends, only means. Niles Eldridge asks, in his admirable book about the meaning of sex (*Why Do We Do It; Rethinking Sex And The Selfish Gene*),<sup>5</sup> 'How reasonable an assumption can it be that we eat to live, but live to reproduce?... We cannot have sex without living, yet we can live without having sex.' And in fact living itself provides us with plenty of reasons to go on doing it. We live for the present, not the future.

Sociobiology's preference for supposed occult prudential motives over obvious ones is surely not a parsimonious way of thinking and neither, as it happens, is it Darwinian. In *The Descent of Man* Darwin argued strongly that we are not just a sociable species but are naturally *more* sociable – more co-operative, affectionate and interdependent – than any of our relatives. Our social instincts are, he said, so crucial to our lives that they must have been strongly developed during evolution by means of group-selection – by the differential survival of coherent, friendly groups over less interactive ones. These instincts therefore now ground our motives and shape the

<sup>4</sup> *Philosophical Investigations* part I, section 23, G.E.M. Anscombe's translation

<sup>5</sup> New York, W.W. Norton & Co 2004, 32.

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complexity of our lives. So the idea of deriving all our motivation from the single stem of selfishness, or enlightened self-interest, is (said Darwin) radically mistaken.<sup>6</sup>

### Which Unit?

During the mid-twentieth century Darwin's suggestion was, of course, suppressed and thrust aside because it involved group-selection. At that time, evolutionists made selection at only one level into a compulsory orthodoxy. Rationality demanded (it seemed) that competition should take place only between a single set of rivals – evolutionary atoms which profited individually from the process. These units, which at first had seemed to be whole organisms, were finally deemed to be the genes and were treated as independent agents in a way that seemed to credit them with having purposes of their own. The imagery of 'selfishness', which expressed the supposed isolation and eager activity of these rivals, was seen as crucial for the process.

The resulting mythology of egoism suited the Thatcherite age so well that the story seemed, for a while, convincing to many scientists as well as to the public. Later, however, serious cracks began to appear in it, not least because it was clear that genes themselves are not actually individualists but highly co-operative. It emerged that the simple atomistic pattern was not workable nor necessary, that natural selection can perfectly well go on at a number of different levels between units of different kinds. As David Sloan Wilson put it:

The past half-century was the age of reductionism, when everything was explained in terms of individual self-interest and selfish genes. Now we are entering the age of holism which recognises how colonies of social insects, human societies and at least some multispecies ecosystems can respond as a single 'superorganism' to selective pressures.

The turning-point came in the 1970s. when biologist Lynn Margulis proposed that complex, nucleated cells originated as symbiotic associations of bacterial cells. Now it is known that every entity recognised as an organism is a highly organised group of individual cells, making it hard to deny that groups of

<sup>6</sup> *The Descent of Man and Selection in Relation to Sex* (Princeton University Press 1981), chapter III.

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organisms can themselves have organism-like properties and so can evolve in concert.<sup>7</sup>

Similarly, Edward O. Wilson, whose book *Sociobiology; The New Synthesis*,<sup>8</sup> was a key text of the individualistic doctrine, has now moved away from it and thinks other patterns, such as group-selection, can give better explanations even for the social insects which are his speciality and which were viewed for a time as prime examples of gene-selection.<sup>9</sup>

David Sloan Wilson also points out that group-selection is particularly plausible in the case of humans because of the invention of speech.<sup>10</sup> A group that can talk is able to pass round, and to profit from, any new invention much, much faster than any new developments could ever be spread genetically. In this way a new hunting-method, a new cooking-pot or a new style of government can quickly profit a human group which is co-operative enough to produce it, making these people more successful than their neighbours who don't bother to talk to one another. Speech, in fact, does have its evolutionary advantages – but only for groups of people who like each other enough to attend to their neighbours.

### How Natural Is Sexual Selection?

Yet another interesting case of confusion about evolutionary function concerns Darwin's discussion of sexual selection – the choosing of mates and its effect on the progeny. He added this long, separate section to his book on the Descent of Man because he clearly saw it as an important supplement to his general account of natural selection. But the name he gave it seems odd. In the text he repeatedly contrasts *sexual selection* with *natural selection* as if it were something unnatural. What he seems to mean is that ordinary, standard 'natural selection' is the kind that works simply by differential dying – by one kind of variant being lost in greater numbers than another.

<sup>7</sup> 'Super-evolution; change for the common good' in *New Scientist*, Oct. 9<sup>th</sup> 2010.

<sup>8</sup> (Harvard, Belknap Press, 1975).

<sup>9</sup> See 'The Evolution of Eusociality' by Martin A. Novak, Corina E. Tarnita and Edward O. Wilson in *Nature* for August 26 2010.

<sup>10</sup> See 'Why Richard Dawkins is Wrong About Religion', in *The Edge Of Reason*, (ed.) Alex Bentley, (Continuum Press, 2008).

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He did, of course, believe that this was the main source of evolutionary change, and it was the only source that he talked about in *The Origin Of Species*. But he was always sure that it was not the only source, and he got quite cross when people claimed he thought it *was* the only one. No doubt this was because he could see that this explanation alone could not possibly be adequate. Selection by differential survival is only a filter, and filters have no originative force. They do not create the novelty, the coffee which flows out of them. New, positive kinds of development need their own source. This was surely why Darwin always remained interested in Lamarck's suggestion that acquired characteristics were somehow inherited, even though he could not see how.

But besides this metaphorical kind of selection by death he saw a different kind which visibly went on in the world around him – the process by which creatures actually choose their mates; literal choice rather than the figurative kind. (The awkward effects of the selection metaphor have, of course, often been noticed, but I don't think people have grasped quite how badly it obscures the word's literal meaning). Darwin had watched how animals make their choices and had seen its striking effects in the decorations that so many of them wear – especially animals with a strong visual interest, such as birds and insects. He saw that these ornaments often seemed to have no other function than this and that some of them only appeared during mating displays. So he documented their effectiveness and illustrated it with careful drawings.

### Whose Artistry?

His readers, however, did not readily believe him. Scientists found it absurd to suggest that something so trifling and capricious as the taste of individual birds – especially female birds – could have such momentous effects. They agreed that the ornaments in question were indeed amazingly, unaccountably subtle and beautiful. But this only made them even less able to believe that mere animals could ever have appreciated them. Repeatedly, Darwin showed his reasoning about this:

The case of the male Argus pheasant is eminently interesting, because it affords good evidence that the most refined beauty may serve as a charm for the female, *and for no other purpose*. We must conclude that this is the case, as the primary wing-feathers are never displayed, and the ball-and-socket ornaments

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are not seen in their full perfection, except when the male assumes the attitude of courtship... Many will declare that it is *utterly incredible that a female bird should be able to appreciate fine shading and exquisite patterns*. It is undoubtedly a marvellous fact that she should possess *this almost human degree of taste*, though perhaps she admires the general effect rather than each separate detail. *He who thinks that he can safely gauge the discrimination and taste of the lower animals*, may deny that the female Argus pheasant can appreciate such refined beauty; but he will then be compelled to admit that the extraordinary attitudes assumed by the male during the act of courtship, by which the wonderful beauty of his feathers is fully displayed, are purposeless; and this is a conclusion which I for one will never admit.

(92–3, emphases mine)

What was obvious to him, but apparently quite invisible to his critics, was that human tastes too arise out of our nature as animals. (Similarly, we might notice that the Purple Emperor isn't the only creature that eats its meat high, or that has a taste for salt). Darwin touched on this delicate issue when he discussed the various features in animals which appear to work as ornaments for them, though they don't strike us as beautiful. He writes:

No certain answer can be given to these questions; but we ought to be cautious in assuming that knobs and various fleshy appendages cannot be attractive to the female, when we remember that with savage races of man various hideous deformities – deep scars on the face with the flesh raised into protuberances, the septum of the nose pierced by sticks and bones, holes in the ears and lips stretched widely open – are all admired as ornamental. (129–30)

Even human observers, in fact, don't always have faultless taste or one that agrees with our own. Their preferences differ from culture to culture. We do find, however, that people in different cultures commonly share some basic aesthetic judgments. And as it happens, one of the points on which different societies most readily agree is a widespread admiration for the elegant plumes of birds, which are sought out and used as ornaments in a great range of cultures.

Who, however, designed these wonderful feathers? Certainly not a human. If Darwin is right, the artists here seem to have been the birds themselves, which means (since the males usually have the best feathers) chiefly their wives. So is there not something oddly condescending about scientists presuming to doubt whether these original



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designers are themselves capable of the 'almost human degree of taste' which would be needed to appreciate their work?

### The Threat of the Inner Life

There were, I think, two reasons why Darwin's critics found these suggestions so disturbing. One, of course, was simply the species-barrier, the habit of considering humans as so remote from other animals that it became almost impossible to imagine any continuity between them, even when argument showed this to be necessary. This was, of course, always a main source of difficulty about accepting Darwinian reasoning, which was far more directly offensive to notions of human dignity than to the status of God. But another obstacle here is just as strong but perhaps less obvious, namely unwillingness to take seriously the influence of subjective happenings on the world.

Darwin was suggesting that the wishes of hen-pheasants – their inner thoughts and feelings as they watched their various suitors – had affected, and had finally determined, the design of later generations. This thought is frightening, not only when it concerns animals but even more when it concerns people.

Of course it is never easy to accept the role that the thoughts and feelings of our own parents – and indeed of other people's – on similar occasions have played in making things be as they are now. Yet we know that these thoughts and feelings, not only then but throughout their lives, have indeed had this sort of importance. Our own thoughts and feelings too – the constant flow of inner activity by which we respond to the life around us – also affect the world as well as our outward actions. This thought is so frightening that scholars will often go to any lengths to avoid it, which is why Thomas Huxley's obviously false epiphenomenalist doctrine that our thoughts do not affect our actions still has supporters, and why people spend so much more of their time on sociological statistics, neurological details and speculation about evolutionary function than they do on attending to motive.

### Life Has Many Colours

Thus the picture of Natural Selection which grew up round Darwin's main proposals used only two sombre colours – black for death and white for survival. Nature appeared in it only as an obsessive

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accountant, spectacles on nose and ledger in hand, testing every action in those terms and destroying the failures. Any trait still appearing in the world was deemed to have passed her audit in some distinct, discoverable way which constituted its evolutionary function.

This figure of Nature is, of course, quite unlike the sort of nature that we actually find at work in the animal and vegetable world, where it is notoriously a cornucopia, a wildly lavish scatterer of endless seeds and young, a generous, profuse, imprudent source of new life. And when we consider our own motives, we see that this vegetative figure is a far better likeness of the kind of nature that animates us inwardly. Life for us is *not* just the absence of death. Life consists of endless crowded wishes, fears and activities, all primed by their own immediate aims and interests, not by long-term prudence. Like other conscious creatures we usually take action because we want to, and if our nature did not provide us with many vigorous wants we could not act at all.

Of course it is true that if a particular innate taste, such as a taste for eating toadstools, has fatal consequences it will tend to be lost from the species' repertoire. But, in all kinds of animals, a huge number of wishes have no particular effect at that level and work only for the general enrichment of life. No-one who watches seagulls swooping and rising is likely to see good reason to think that they are only taking the exact amount of exercise that they need to keep their constitution in optimal health, and the same goes for human children.

It seems perfectly possible, too, that some tastes persist, even though they actually harm survival-prospects, because other characteristics outweigh this damage. After all, even the human physique has notorious imperfections, such as the bad design of our throats, where food and breath get into dangerous competition. Similarly, the splendid tails of peacocks are notoriously awkward for their flight, yet peacocks are still with us. This has been seen as a grave objection to the sociobiological insistence that everything has an evolutionary function.

Helena Cronin produced an ingenious defence against this, suggesting that the defect really acts as an advertisement, letting the hen know that this must be a particularly powerful male since he has been able to get away with carrying such a dangerous burden.<sup>11</sup> In this way, of course, it is possible to count any given drawback as an asset, thereby saving the principle that every characteristic has a survival-function. But this way of saving principles by

<sup>11</sup> In *The Ant And The Peacock; Altruism and Sexual Selection From Darwin To Today*, (Cambridge University Press, 1991).

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turning them into matters of logic has the unlucky effect of leaving them without any real meaning – something which, at one time, notoriously used sometimes to happen to Freudian principles.

### Purpose Creeps Back

One way and another, then, the attempt to find an evolutionary advantage in terms of survival for every human taste – including, say, the taste for doing mathematics, for jokes and laughter, for music and poetry, for play, for sympathizing or for quarrelling – has proved perverse and empty. These are things that are done *for their own sake* because they fulfil our nature. The tendency at present is to connect them all with evolution by claiming that they promote survival because they are bond-forming. But the kind of bond formed in each case is different and the effects on survival are infinitely varied. This suggestion does nothing to explain the peculiar character of these various occupations. To understand them, we need to look at the distinctive part they each play in real life, not at speculations about how they might possibly have prevented some distant ancestor from dying.

Clearly, Darwin for one did not think that this was the only way of explaining motives. He saw that there was more than one kind of question to be answered. The case of the Argus pheasant shows, he says, that ‘the most refined beauty may serve as a charm for the female, *and for no other purpose*’. Of course he was not denying that successful courtship as a whole serves another kind of purpose in its effect on the species. But he sees that the immediate point of these activities must lie in its meaning for the creatures that are acting. This subjective aspect is its central function.

He did not, then, invent a just-so story – as his supposed followers might do now – to make this fit neatly into his views on natural selection. Instead, he added a further long section to his work, dealing in detail with selection in its literal sense. He stuck to the actual cocks and hens involved and showed how these factors work in their lives. He openly talked of subjectivity and used words such as *charm* and *beauty* that are appropriate to it. Because this language embarrasses his successors they dismiss his suggestions as naïve and old-fashioned. In their view all subjective phenomena are merely superficial appearances, perhaps actually illusions. The reality behind them is always an evolutionary function, which sounds reassuringly objective because the word *function* suggests machines.

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But machines are certainly not value-free. They are indeed often thought of as *objective* because they are not people. But they are produced by people. They have always been designed by someone for some special purpose – to do some particular thing which their designers wanted done. So we cannot eliminate purpose from the natural world by describing it in terms of machines. The whole project of scientific positivism was, however, to eliminate all such wanting from descriptions of the world, thus producing pure statements of objective fact, undefiled by emotion. It was meant to produce a world of objects without subjects, which is really not an intelligible idea at all. The behaviourists' attempt to ignore motives was part of this vast and crazy enterprise, which is often celebrated by saying that teleology has become obsolete.

### Wider Evolutionary Ambitions

The word *teleology*, however, does not cover just conscious human purposes but the whole of function. Aristotle, who first worked out this form of explanation, never thought of it as arising from the purposes of a creative god – an idea quite alien to Greek thought. He used it simply for the kind of questioning which asks what particular things are *for* – what they do for the organism that owns them, what is their *telos*, their end or aim in the context where they belong. As he pointed out, this kind of reasoning is so indispensable in biology, and the aims it seeks are usually so obvious, that no other way of thinking can displace it. It is simply a fact that all organisms constantly strive towards their own survival, their health, their well-being, their general fulfilment and their reproduction.

Thus an acorn placed under a paving-stone will not simply settle down contentedly to an underground existence. Instead it will do its damndest to get out past that stone and to fulfil exactly the ambitions that are involved in being an oak-tree. Human conscious purpose is not the prime model here. Human action is just one form of this universal striving, which is something far more pervasive in the world than our conscious kind of purpose. These are the only terms in which the behaviour of living things can be understood at all.

But is this also true of a vast process like evolution? Does that too have its own guiding purpose?

In theory, today's scientific thought excludes this idea. Indeed, officially it won't even countenance much smaller purposes. It holds that to say that legs are organs for walking is only to say that walking is what legs do. But this formula is so unhelpfully thin that

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people seldom try to follow it. The language of *adaptation* and *selection* proceeds quite naturally, as it always has done, by assuming familiar aims.

This habit is greatly helped by the word evolution itself, which has always carried the implication of fixed direction. Like *development*, this word means the unrolling of something like a scroll or a bud, the fulfilment of a given potentiality. And the various evolutionary prophets have all had their views about what this pre-existing direction is. They usually state them in highly general terms that seem suited to so vast a process. But since they also want to say something useful for their readers' lives they almost inevitably cash these generalities in local human terms.

They assume, for a start, that humanity itself is central to this cosmic aim, and then that whatever aspect of human life strikes them as primary constitutes the end of evolution. Thus Herbert Spencer defined the word as meaning 'an integration of matter and concomitant dissipation of motion, during which the matter passes from an indefinite, incoherent homogeneity to a definite, coherent heterogeneity'. From this he swiftly deduced that human individuality is the prime evolutionary value, and that therefore free trade is good and big government is very dangerous. Enterprising individuals must be selectively encouraged and the feckless poor must be stopped from distorting their evolution by breeding too freely.

Rather differently, Julian Huxley taught that a deep, scientifically-guided reverence for the evolutionary process itself provides a kind of humanism which is the best modern substitute for religion. But his humanism too required eugenics, since it demanded that we civilized people – who are now the growing-point of evolution – should control all human reproductive development and direct it rightly. Differently again, the cosmologists John Barrow and Frank Tipler took a more remote perspective, describing evolution as consisting in prolonged development of Life, which roughly = intelligence = science + technology. This Life, first in human form and then through a series of computerised cosmic probes which would colonize space, would finally, at the Omega Point, become omniscient and take over the universe, thus apparently becoming God.<sup>12</sup> And so on.

These suggestions were all, in their day, put forward as scientific. None of them, however, is popular with scientists today. The Nazis discredited Spencer's and Huxley's eugenic ideas, while the cosmic alternative exists now mainly in science-fiction. What officially

<sup>12</sup> *The Anthropic Cosmological Principle* (Oxford University Press 1986), 677. NB the final footnote.

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prevails now among many scientists is the seemingly more sceptical view that the cosmos has no meaning at all – that, as Richard Dawkins puts it, the universe contains, ‘at bottom, no design, no purpose, no evil and no good, nothing but blind, pitiless indifference’.<sup>13</sup>

That sounds value-free enough. But Dawkins, after writing ‘DNA neither cares nor knows. DNA just is’, rather surprisingly goes on to write, ‘And we dance to its music’. This can surely only mean that DNA *does* have a purpose, the vast cosmic purpose of maximizing all reproduction, which it is somehow in a position to impose on everything, including us. We are, in fact, still in the same intensely teleological world that we heard about in *The Selfish Gene*. We are still lumbering robots, helpless in the manipulating hands of these obsessively purposeful genes, which turn out (rather surprisingly) to be in charge of the whole universe.

This lush mythology of gene-selfishness supplies the teleological jam that is always needed to make thin scientific stories like this go down. And the confident certainty of finding evolutionary functions for everything provides psychologists with a most flexible background for every speculation. In fact (as many people have pointed out) if you try to sling out Nature – or indeed the whole idea of Nature – through the door, she always comes quietly back down the chimney. And this may leave you even worse off than you were before.

### The Hunt for Purposelessness

It is no surprise that the pettiness of many proposed evolutionary purposes put orthodox biologists off teleology altogether – produced, in fact, an advanced case of teleophobia. And even the slightly wider point that our own species is central to evolution – a notion still potent with ‘human exceptionalists’ today – has no clear scientific warrant. In fact, none of the candidate ideas proposed as evolutionary purposes looks very impressive.

That, however, certainly cannot mean that there is no such thing as purpose in nature. Dawkins’s claim that the universe contains ‘at bottom, no design, no purpose, no evil and no good’ cannot be right. For it is obvious that our own planet – which is certainly part of the universe – is riddled with purpose. It is full of organisms, beings which all steadily pursue their own characteristic ways of

<sup>13</sup> *River Out Of Eden; A Darwinian View Of Life* (London, Phoenix, 1995), 155.

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life, beings that can only be understood by grasping the distinctive thing that each of them is trying to be and do. And as for *good* and *evil*, some quite definite things are good and others evil for each of them, because each has its own appropriate needs and capacities. Thus, being put under water is fine for fish but bad for zebras. And in human life too, despite cultural variety, experience has shown plenty of goods and evils that are naturally given and cannot be changed. The difficulty that we have is in choosing among these various goods and evils, not in inventing them.

Value, in fact, is not an extra feature pasted onto the facts by human observers. It is a real emergent property of situations in the world. Each kind of organism acts according to its own values, its own inner design, the characteristic pattern of needs and capacities which determines its direction.

No outside watchmaker, blind or otherwise, is needed to impose these patterns. Natural selection cannot be their main source because – though no doubt it does affect their details – it can only be peripheral. Equally complex patterns are found, after all, throughout nature in inanimate things which do not compete in reproduction at all. Crystals, galaxies, cyclones, rivers and volcanoes all form regularly according to their own established laws without needing to outdo their neighbours. And they all fit together well enough to produce the remarkable degree of order in the world which, so surprisingly, makes science possible and which gives rise to the idea of a unifying purpose.

### The Mystery of Order

This widespread harmony was what puzzled Darwin when he was wondering about the need for God. What struck him was

the extreme difficulty *or rather impossibility* of conceiving this immense and wonderful universe, including man, with his capacity of looking far backward and far into futurity, 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.<sup>14</sup>

<sup>14</sup> *Autobiographies of Thomas Henry Huxley and Charles Darwin* (Oxford University Press, 1974), 54 (Emphasis mine).

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He added, of course, that perhaps we should not trust our human intellects when they draw ‘such grand conclusions’. But then Dawkins’s claim to know that there is no such cause is just as grand – just as over-confident – a conclusion as any positive claim that there is one. And the alternative notion that DNA somehow stands in for that cause is more over-confident still.

In truth, however, this difficulty about grandeur only affects the *transcendence* of the cause, its metaphysical status. It does not cast doubt on the order itself or on its *immanence* – the way it works in the phenomena – which is our present concern. There is nothing unduly grand or fishy about noting that the world is remarkably full of order. Science takes this pervasive order for granted, indeed it relies on it. If we then ask what produces it, and go on to dismiss the suggestion of an outside engineer, it is natural to suppose that order must come from the creativity of matter itself – matter, the silent partner, the piece that is ignored in so many supposedly materialist games of chess.

It turns out, in fact, that Matter is not the inert, passive, standard, characterless stuff of tradition – the mass of little inert lifeless lumps which seventeenth-century theorists envisaged when they wanted to provide a suitable opposite for spirit and to exile earthly stuff entirely from the business of creation. Instead, matter is something much more active and mysterious, something of which perhaps we actually know very little, something that must have had in it, from the start, the capacity to generate all the complexities that have since arisen, and even to rebuild them again after repeated extinctions. As Tom Nagel has pointed out, ‘The possibility of the development of conscious organisms must have been built into the world from the beginning. It cannot be an accident’.<sup>15</sup> Paul Davies, after surveying most thoughtfully the range of views that are possible here, concludes, ‘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 cosmos, perhaps through a shadowy, half-glimpsed life principle.’<sup>16</sup>

Darwin’s reasoning does not, of course, call on us go back to a literal reading of the Book of Genesis in order to explain all this self-organising matter. What it does require is that we recognise intelligence – design – of some kind as a basic constituent of the universe.

<sup>15</sup> Thomas Nagel, *The View From Nowhere*, (Oxford University Press, 1989).

<sup>16</sup> *The Goldilocks Enigma; Why Is The Universe Just Right For Life?* (London, Allen Lane, 2006), 302–3.



## Why The Idea Of Purpose Won't Go Away

whatever we may then decide to think about the idea of a designer. What it excludes is the picture of a mindless, meaningless, disconnected cosmos. This, of course, is a picture which many other people besides Dawkins now think of as a safe, sceptical fall-back position, a handy armchair left for them by the Enlightenment. In truth that picture makes no sense, least of all for an age so devoted to science. Human design and purpose are not something extraneous on earth. They are part of this universal order, akin to the rest. Our intelligence is simply one form among many by which wider shaping and ordering capacities – forces that animate and organise the whole cosmos – work in the world.

When we consider something small like a snow-crystal we may find it quite natural to see the power of self-organization in this way. We then readily suppose that forces within the stuff it is made of have produced its special shape and quality. But when we come to larger and more complex items like ourselves our current way of thinking makes this kind of explanation seem strange and alarming. We are so used to thinking of matter reductively, as something lifeless and alien, that we cannot easily acknowledge it as creative. We then ask anxiously, are these forces supposed to be physical or spiritual?

But is this a sensible question? As Spinoza pointed out, things can be both. Mind and matter are not separate substances, they are complementary aspects of a most complex whole. The gulf that dualists have strenuously dug between these two sides of life has had its uses, but the division is crude and often quite misleading.

Living things are not composites put together out of separate software and hardware. They are complex creatures whose faculties all grow out of their nature as a whole. Such beings need to be thought about in a dozen different ways – not just in two – as we become able to understand them better. Trying to explain their evolution reductively in terms of a mere ambition to increase numbers is just a displacement activity.

dr.mary.midgley@googlemail.com