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MARY MIDGLEY

by Alan McEachran

Conferences of professional women philosophers don't hire large halls to cater for their number. One reason why, Roger Scruton has recently implied, (1) is the effect of male bullying, even, or especially, in academia. Happily, though, a remarkable group of women philosophers was able to flourish at Oxford during the Second World War, when there were fewer men around. Mary Midgley was one of these, along with Elizabeth Anscombe, Mary Warnock, Philippa Foot, and Iris Murdoch. Midgley's contemporaries have been better recognised, partly because she didn't publish her first book, *Beast and Man*, until 1978, when she was already 59 years old. In this and in many subsequent books and articles, she has carved out a territory of her own, wittily applying a very British analytical style to philosophical problems in ethics, science, and religion. For Scruton, she deserves attention for her unfashionable attention to the classical philosophical question, "what is the nature of man?", and for her confrontation with evolutionary "scientism". A unifying theme of her work is her consistent opposition to what she regards as the baleful influence of various philosophical *dualisms*: of mind and body, reason and feeling, facts and values, individual and society, freedom and determinism, man and animal, science and religion, and heaven and earth.

Midgley's memoir, *The Owl of Minerva*, lists ship-brokers and engineers among her ancestors. This seems fitting for an author who identifies much of her writing as "philosophical plumbing" – the untangling of conceptual confusions and the unblocking of conceptual connections. In her books and essays on ethics the attention she pays to the way people actually *use* moral language enables her to fit together seemingly contradictory ethical positions. For Kant, and for contract theorists, the foundation of ethics is the idea of the rational, autonomous, individual. They see rights and duties as correlative. Midgley thinks that this focus on the *rational individual* is all very well in some fairly narrow areas of life, but ignores the fact that most people, most of the time, see themselves as part of larger groups, and are motivated by feelings rather than rational calculation. People's feelings, and through these their characters, are judged by us, using the moral language of virtue and vice, to be appropriate and inappropriate in specific situations. In the real world of moral choice, argues Midgley, our judgements don't often hinge on notions of duty; if we are told that something is not a moral duty, we are inclined to interpret that as meaning "so it doesn't matter". We typically don't see *duties* as merely the other side of the coin to *rights*. We can easily construct a list of things to

which we see ourselves as having *non-contractual* duties, though we are bound to argue about what is in that list -- would we, for example, agree about posterity, works of art, ecosystems, and human embryos? The language of *rights*, thinks Midgley usually “keeps different company” from that of *duties*. To call something a right – especially if we call it a *human right* -- is normally a way of signalling that it is of particular importance or value to us. In other words, we might say that we *feel* a particular way about it.

In *Beast and Man* Midgley’s main aim is to reassert the importance of human nature as central to ethics, and she sees scientific evidence as crucial to this undertaking. But what evidence, and understood how? For reasons we shall explore, her preference is for the ethological research of Lorenz and Tinbergen, rather than the sociobiology of E.O. Wilson, (2) whose work was beginning to make its academic impact in the 1970’s. In giving this work centre stage Midgley was dissenting from those schools of social science which had rejected the relevance of animal studies to human behaviour. Marxists, existentialists, cultural anthropologists, and behaviourists might disagree about a lot, Midgley argues, but they share the same “blank paper” view of humanity, according to which all behaviour is learned and people are seen as the plastic, infinitely variable, products of history and culture. Her position is unequivocal: “We are not just rather like animals; we *are* animals”. How, then, are we to distinguish man from other animals? Not, thinks Midgley, by being “profoundly ignorant and confused” about other species, nor by seeing man as “a brand of machine or a disembodied spirit” We need neither deny human free will nor degrade mankind by claiming that like other creatures we have our own nature. We are obviously free in ways animals are not, but, she thinks, freedom of action *requires* us to have a nature; if we came into the world as plastic and indeterminate beings, societies would be able to stamp us into any shape they wanted. We could become the playthings of psychologically well-informed tyrants, because we would lack any inborn tendencies inclining us to resist conditioning. She sees existentialism as having taken this misunderstanding of freedom furthest; its claim that we somehow create our own freedom *out of nothing* makes no sense.

Beast and Man begins by looking at attempts to explain human behaviour which either try to dispense with an analysis of motivation, or interpret it too narrowly. Midgley thinks these fail because they foolishly suppose that examining meanings and motives isn’t properly “scientific”, or they ignore the conceptual contribution made by students of animal behaviour. In this context she tries to dispel the confusion surrounding terms like *instinct*, *nature*, and *natural*. Instincts are often wrongly presented as being either present at birth or else non-existent. However, ethologists have shown how instincts, in the sense of inborn dispositions, may be “switched on” in animals as they grow and develop. Midgley distinguishes here between *open* and *closed* instincts. The latter are behaviour patterns fixed genetically in every detail, like the honeybee’s dance, which are displayed by a creature even when it is reared in isolation from members of its species. Open instincts, by contrast, are like “programs with a gap”; here, parts of the relevant behaviour pattern are innately determined, while others are left to be filled in by experience. Such “programming” is of strong general tendencies, and the more complex and intelligent creatures are, the more their behaviour follows this pattern, making the traditional antithesis between *nature* and *nurture* quite unhelpful. Closed and open instincts are best seen, she thinks, in terms of a continuum; where a particular behaviour of any animal is to be located on this continuum can only be determined by detailed empirical study.

When we talk about the “nature” of any creature, says Midgley, we are talking about “a certain range of powers and tendencies, a repertoire, inherited and forming a fairly firm characteristic pattern, though conditions after birth may vary the details quite a lot”. Seen in this way, does it make sense, for instance, to say that man is “naturally aggressive”? The ethologist’s answer is that aggression is obviously one of man’s natural tendencies, not that he is “basically” aggressive, or that it is his sole or overwhelming motive, though he clearly from time to time attacks other members of his species without necessarily being taught to, and with a frequency greater than many other creatures. This fact, she thinks, would strike a visitor from Alpha Centauri as being “quite as remarkable as the other distinguishing marks of the species”. However, in discussing aggression and its relationship to wickedness, (3) she points to the confused way in which these two concepts have often been used interchangeably. Involving as it does the tendency to attack others, and accompanied usually by anger, aggression in animals is typically limited in scope and intention, and not normally associated with killing or destruction. She uses research on child development to show how essential the concept of aggression is in understanding, say, the socialisation which takes place through play. It is no more dangerous, she argues, than any other human motive, including love, as long as it is controlled, directed, and balanced by other motives. For this reason, she concludes, not all wickedness stems from aggression, and aggression does not necessarily result in wickedness. Where the latter is about destructiveness, it typically requires hatred, resentment and fear. Our innate predisposition to fear has rarely been a matter of academic dispute, and it clearly does not condemn us all to universal cowardice. Why, then, asks Midgley, should we think about aggression any differently?

Does knowing our nature help us decide how to act? A problem here is that, as Midgley tells us, “Concepts such as *nature* which seem to combine reports of fact with judgements of value, have worried moral philosophers.” When we call something *natural* we are usually implying that it should be treated in a particular way. To know what we are *naturally* suited to, or capable of, typically indicates what is good for us, and therefore what we should do. We use many terms in a similar way – *dangerous*, *harmful*, *dirty*, for example – but in doing so we seem to be mixing facts and values in a way which many philosophers since Hume have regarded as logically impossible.(4) The trouble with the Humean position, thinks Midgley, is that it wrongly sees facts as neutral things devoid of values, whereas, though facts are not invented, they are nevertheless always *chosen*; to describe something is to select, interpret, and classify it in accordance with standards of judgement, and to state that it is a *fact* is to affirm its importance, its worthiness of our attention. Hume’s mistake resembles the false separation in ethics of reason and feeling with which we began our discussion.

The facts of our nature are, then, she argues, relevant to our moral choices: “we can indeed only understand our values if we first grasp the given facts about our wants”. She affirms the classical Greek view that we would never call something “good” if nobody ever wanted it. This means that anything we want must have something good about it, otherwise we wouldn’t want it, but it doesn’t follow that everything we want is good for us in an overall sense. Our nature gives us wants which conflict, and we need to establish systems of priorities in order to think about them. Happily, we are born with the capacity to do this – even small children soon develop policies for choice – and we do it of course within the context of a culture, which groups, shapes, and channels our wants. But, Midgley insists, cultures do not *create* our wants; our basic set of these is given. She attacks Nietzsche and Sartre here for their claim that we somehow create, and can re-invent values, as though *anything* could be intelligibly thought of as having value. These thinkers manage to applaud without

embarrassment their own particular favourites from the range of existing traditional values. She also sees existentialism as strangely insistent that human beings are “thrown” – are strangers – in an alien world rather than creatures who have evolved to be at home in it. Doctrines like this, she thinks, make reasoning irrelevant to moral choice.

If cultures don’t create our values, how are we to understand their relationship to human nature? For Midgley, “culture is natural” because man “...comes half-finished. Man needs a culture to complete him”. Culture should be seen “not as a replacement for instinct, but its outgrowth and supplement.” She offers us a culinary metaphor at this point to aid our understanding: man is like a versatile cake mix which can be variously prepared and made into many different types of cake, but never into roast beef or smoked salmon. And just as the cake has to be baked, so the human infant has to grow up within an existing culture. Infants who do not absorb their culture are not, as a result, *free*; they are deprived. Where “blank paper” theorists go wrong, she argues, is in seeing the power of culture as omnipotence; they talk as though culture were the enemy of freedom rather than the means whereby it is possible. If, in the name of freedom, we choose to reject our cultural inheritance, we must nevertheless be grounded in it first.

If culture does not nullify freedom, neither does biology. Midgley is puzzled by these lines of Housman: (5)

*Wanderers eastward, wanderers west,
Know you why you cannot rest?
'Tis that every mother's son
Travails with a skeleton*

But, she asks, “suppose we had no skeleton?” We can view our skeleton as a dead weight we must drag around, or as something which carries us, and the same is true of all of the structures – physical and social -- which make up our lives. It is, further, a mistake to see any of them as basic or final in determining our actions. She is concerned that with the arrival of sociobiology on the academic stage, *genes* had begun to be identified as just such a basic or final determinant. Wilson (6) approvingly quotes Samuel Butler’s quip that a chicken is just an egg’s way of making another egg. We can now update this, he claims, by saying that an organism is just DNA’s way of making some more DNA. Midgley finds this sort of language confusing. By any ordinary standard, she argues, organisms are important; they are in fact the condition of anything’s *being* important. If we imagine a world in which plants and animals no longer lived, but the seeds and sperm banks from which they could be reconstituted remained untouched forever, it would make little sense to say that essential value lay in the latter rather than the former. Potentiality only matters because of what happens when it is actualised; a blueprint can’t be thought of as more important than the building, or the ingredients than the pudding. Sociobiology, she thinks, makes this mistake by seeing the whole purpose of evolution in the proliferation of genes, which are likened to little men, with interests and motives, and which are also, in Dawkins’ phrase, “immortal” beings.(7) But if they don’t actually die, then, insists Midgley, neither do they live -- not in the sense that complex organisms do.

Dawkins’ *The Selfish Gene* is the focus of her discussion in her 1979 essay, *Gene Juggling*. (8) She complains that Dawkins’ readers are bound to interpret what he says as a biological support for philosophic egoism – the doctrine, most famously expressed by Hobbes, that we are all motivated

by self-interest. Dawkins disclaims any interest in human psychology or in ethics; his subject, he says, is the proposition that the “unit of selection” at work in evolution is not the group or the individual organism, but the gene. He defends the use of game theory in explaining gene selection by insisting that theoretical talk about “cheats, suckers, and grudgers” has no sinister implications but is part and parcel of the abstract modelling which is common among biologists: “The idea of animals behaving *as if* calculating odds.... is fundamental to an understanding of the whole of sociobiology..... Just as ...when a man throws a ball high in the air and catches it again, he behaves as if he had solved a set of differential equations...”

However, Midgley shows that *The Selfish Gene* actually invites a human application. Dawkins’ first chapter opens with the claim 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?” Though he doesn’t directly discuss these questions, he does repeatedly allude to the second, at least. In his preface he declares: “We are survival machines – robot vehicles blindly programmed to preserve the selfish molecules known as genes.” Despite his disclaimer about ethics, he tells us: “If you would extract a moral from this book, read it as a warning. Be warned that if you wish, as I do, to build a society in which individuals co-operate generously and unselfishly towards a common good, you can expect little help from biological nature. Let us try to teach generosity and altruism, because we are born selfish..... (though) we have the power to defy the selfish genes of our birth....”.

Now, a major problem of sociobiological writing, argues Midgley, is its equivocal use of language. Alongside *selfish* one finds *altruistic*, *spiteful*, *manipulative*, *ruthless*, *self-interested*, and a host of other terms. How are we to understand their use? We could perhaps see them as metaphorical. Darwin, after all, uses metaphorical language when he talks of *natural selection*, *competition*, and *the struggle for existence*. We are obviously not meant to suppose that something called *nature* really *selects*, or that seeds really *compete*. We can see the special use to which these terms are being put because of the distance that clearly separates the everyday context from the biological one. Danger lurks if one then tries to re-use terms which have been “borrowed” in this way, with their new meaning, to talk about man. One risks returning “the transplanted language to its home ground”, making for confusion. Midgley thinks that this is what Dawkins has done. She begins her critique by saying “Genes cannot be selfish or unselfish, any more than atoms can be jealous, elephants abstract or biscuits teleological”. Dawkins responds (9) by asking, “Why didn’t she add to this witty little list, for the benefit of quantum physicists, that fundamental particles cannot have charm?” But in saying this he makes Midgley’s point for her. When we read of “charmed” particles, we understand that our attention is being drawn to features of the physical world that are puzzling, even seemingly nonsensical. However, what are we to make of a *selfish* gene?

Dawkins claims that *selfish* and *altruistic* are used in “a special, restricted, sense....We do not ... mean the words in a *metaphorical* sense. We define altruism and selfishness in purely behaviouristic ways....An entity is said to be altruistic if it behaves in such a way as to increase another such entity’s welfare at the expense of its own. Selfish behaviour has exactly the opposite effect....an oak tree, or a gene, may legitimately be defined as selfish.” Midgley responds (10) by insisting that this use of *selfish* is careless: “philosophers do indeed accept the use of technical definitions, but that does not mean that no standards apply to their manufacture”. She argues that where a restricted sense of a term is used, it ought to be one which at least forms part of the normal meaning of the word. It cannot be a meaning which falls right outside it. Given that Dawkins’ understanding of

selfish seems to be something like “actually self-preserving in the long run”, why, she asks, does he say *selfish* rather than, say, *competitive*? (Or, we might add, *resourceful*, or *persistent*?) The answer, she suggests, is not mere clumsiness; it stems from “a real bias towards psychological egoism”. In this her judgement is surely right. “We are born selfish”, asserts Dawkins. To achieve justice, we must, he tells us, *overcome* our natural inclinations, we must “defy the selfish genes of our birth”, since “disinterested altruism...has never existed in the whole history of the world”. To say it has never existed is to say, with Hobbes and other egoists, that what looks like altruism is really something else; *selfishness* is revealed when we have stripped altruism down to its underwear. This is made more explicit in popular sociobiology texts. In his *On Human Nature*, Wilson tells us that the “good” behaviour of the seeming altruist “is calculating, often in a wholly conscious way...its psychological vehicles are lying, pretence, and deceit...”, (11) while for Ghiselin in *The Economy of Nature*, (12) “...given a full chance to act in his own interest, nothing but expediency will restrain...any organism...from brutalising, from maiming, from murdering... his brother, his mate, his parent, or his child. Scratch an altruist, and watch a hypocrite bleed”.

Dawkins tells us that to be moral we must “defy” our selfish genes. But if it is these selfish genes which make us altruistic (in the restricted sense), why defy them? And *how* we are to defy them? We have seen that Midgley rejects as incoherent the possibility of choice made in a void; real choice has to be based on our rich, but conflicting, natural endowment of needs and wants. Dawkins, though, doesn’t want to head into the philosophical territory this opens up. Were he to do so, thinks Midgley, he would come up against what she identifies as his own “fatalism of the most extreme sort”. When criticised for his “robot” view of man he responds to the complaint that he is too loose in his use of metaphor, thus: “That was no metaphor. I believe it is the literal truth, provided certain key words are defined in the particular way favoured by biologists”. Midgley comments in turn that he must be referring to *genes* and *selfish*, while the terms that really need attention are *machine*, *vehicle*, and *blindly programmed*. Dawkins offers no “special, restricted sense” of *their* meaning. The lesson to be drawn, notwithstanding Dawkins’ protestations to the contrary, from much of *The Selfish Gene* is the sense of our being controlled by external forces, whose personification only dramatizes our helplessness. In *The Extended Phenotype*, (13) Dawkins rejects the claim that he is putting forward “genetic determinism” as though it was more significant than any other kind. Like other causal processes discovered by science, he remarks, it leaves the philosophical problem of determinism untouched. However, Midgley finds the conclusions he draws from his preoccupation with the issue of the evolutionary unit of selection contradict this. The point of describing genes as *programmers*, she suggests, is to pick them out as originators, as the starting-point of explanation. *The Selfish Gene* tells us that “Genes exert ultimate power over behaviour...Genes are the primary policy-makers; brains are the executives...” But *ultimate power*, she notes, is a curiously unscientific notion, since science recognises no causes which are not themselves subject to other causes; and if something did have *ultimate power*, wouldn’t it be something which we could never *defy*?

Midgley discusses determinism (14) in a way which this time shows her to be more sympathetic to Hume. Like Hume she sees the impossibility of ever laying bare all the causal factors that underpin human action as something which makes the *free will versus determinism* problem, narrowly conceived, intractable. She is more concerned with countering *fatalism*, which she describes as a “superstitious” acceptance of human impotence in the face of supposed *determining* forces which can all too easily, as in the case of *genes*, be dramatically personified. This “animistic” way of thinking

often depicts causes as though they were like hostile beings, which reflects the fact that the term, *cause*, has its origin in the Latin for *blame*, or *lawsuit*. She notes that we are much more likely to look for the causes of misfortunes; when things go right we tend “to take the course of nature for granted”. Similarly, we are inclined to think in personal terms even when we are not actually dealing with persons, so that the notion of a malignant fate is a very persistent one, “much harder to root out”, she thinks, “than that of a good God”. Fatalism feeds on this tendency to present human effort as useless, even self-defeating, as in the story of Oedipus.

Determinism, of course, does not itself imply fatalism. Midgley identifies it as “a relatively modest view”, dating from about the 17th century, involving the belief in natural regularity, in the intelligible connection between phenomena, which makes science possible. The origin of *determine*, she points out, does not mean *force*; it means *make known*, as when mathematicians say that three points determine a circle. In modern times we have come to see scientific determinism have a central place in our culture, but “what we need to do”, she thinks, “is to grasp its limitations”. Much of our thinking is not like that in physical science – it is practical, evaluative, historical, legal, and so on, though it can sometimes be called *scientific* insofar as it is organised and subject to methodological standards. Scientific determinism doesn’t commit us to a particular view of the world, in her view; even if the universe happened to have many irregular features, we would have to pursue science on the assumption that it did not. “We would sometimes go wrong, but that would be better than never going right”.

This applies to the social sciences as well, Midgley tells us. To try to drop determinism here would be to embrace Descartes’ divorce of mind and body; we need to assume regularity in the mental as well as the physical universe. It is sometimes argued that a determinist view of man means that conduct ceases to be free because it is predictable, but she rejects this, arguing instead that no such problem exists as long as our predictions rest on the right sort of grounds -- namely, on our seeing good reason for people to act in the way that’s predicted. As we have seen earlier, she is anxious to counter a false view of freedom just as much as a false view of determinism: “The opposite of freedom is not predictability but slavery of various kinds, whether to an outside master or to inner impediments such as sloth or habit...”. It is easy to be unpredictable, she remarks, if you don’t mind acting crazily, but freedom doesn’t demand craziness or randomness; to be unpredictable to others and oneself is not to be free but to be disordered, to have lost control over one’s life.

If we use our freedom to accept Dawkins’ invitation to invent some *new* kind of altruism which has “never existed before”, we shall have to do so, Midgley suggests, by once again setting aside our feelings. Dawkins’ readers are left to think that all natural feelings are false guides – devices placed inside us by alien beings in order to manipulate us. It is not uncommon for people to fear and mistrust their feelings, but to develop better feelings one must first recognise those which exist honestly as part of oneself. Matters are made worse, she argues, by Dawkins’ notion of *memes*. These units of culture, further “replicators”, which supposedly colonise brains in ways that are advantageous to themselves, seem to make even less likely any project of *defying* our programmers. They are yet another set of autonomous entities, presumably “selfish” in the way they elbow aside their competitors to replicate themselves, but unlike genes they do not, in Midgley’s view, seem to meet any reasonable standard of permanence and distinctness.

Popper conceived of “World 3” objects as things which are products of people’s minds – stories, theories, works of art – which, once created, exist independently of human minds, are typically recorded on stone, paper, magnetic tape, film, etc., and can then be addressed by other minds. (15) A book can even exist *in* someone’s mind rather than in any physical form; boys memorise the Koran, after all. Popper, however, would have been bemused by the notion that World 3 objects can somehow compete and pursue their “self-interest”, as though anthropologists should explain the significance of a tribal dance by exploring in what ways this benefits the dance. Midgley finds it strange that a Darwinian, normally anxious to stress the continuity of evolution, should want to build a “metaphysical wall” between our bodies and the ideas in our heads by positing the existence of such “external” mental entities. Though shy of metaphysics, Dawkins is dismissive of Midgley’s observation that memes, like genes cannot, strictly speaking benefit *themselves* so much as *copies* of themselves. Does this distinction matter? Surely it does; if the day dawns when we are able to create clones of ourselves, these genetic copies will not of course be our identical “selves”. Acting to promote their interests would be akin to aiding an identical twin; but this is not something we normally call “selfish”.

In Midgley’s *Science And Poetry* she is stung by the assertion of the chemist Peter Atkins that science can supply all our intellectual needs, and that poetry is “useless”, at best “entertaining...self deception”. (16) (Atkins sees no difficulty in making this judgement while at the same time denying the existence of the *self*). She sees this as an extreme example of the rejection of a pluralistic approach to knowledge, and of an urge to reductionism, which has taken different forms over the years – in the 17th century doctrine that societies are reducible to the individuals who make them up, as in the 20th century notion that motives can be translated into descriptions of behaviour. This mistaken procedure ends up ignoring the reality of the phenomenon (social institutions, and people’s motives, in the cases above) which is being *reduced*. As with much of the talk about *genes* and *memes*, this reflects the mistaken metaphysical idea that *wholes* are somehow less real than the *parts* of which they are made up. In such thinking, parts are depicted as causally active, while wholes are their passive outcomes. Until quite recently would-be scientific reductionists suggested that their project wouldn’t be complete until everything could be talked about in the language of fundamental particles. Developments in Physics have resulted in less confident talk about such *fundamentals*, but in any case, she asks, why should we consider Physics to be our final intellectual destination? The North Pole may be the place where all signs pointing “North” lead, but why should we see this as the most interesting place? Instead, she thinks we should recognise that different sciences are like different maps which abstract from the complexity of the world for different purposes; each science concerns itself with its own slice of reality and has its own concepts and ways of proceeding. There may be only one world, “but it’s a big one”.

This, again, is crucial when we are talking about human behaviour. For Midgley this area has been muddled by the false notion that we are unable to be objective about what is subjective. This becomes a premise in the widely-accepted but false syllogism:

*Only what science studies is real,
Science can’t study consciousness,
Therefore consciousness isn’t real.*

If we accept this conclusion we are tempted to translate talk about the mind into talk about behaviour, or the operation of computers, or, perhaps, into the language of neurophysiology. But Midgley sees all these as mistaken. Like others, she identifies Descartes as responsible for related problems here. Following Wittgenstein, she sees Descartes as “starting in the wrong place” in his failure to see each individual mind as necessarily rooted in a shared language and culture. Rather than the self being the certain foundation of all one’s knowledge, we now think of the self as an ongoing social creation, the product of a gradual process of interaction with others – a position she supports, characteristically, by discussing the findings of studies of cognitive development in infants. Descartes’ misconceived dualistic picture of mind and body continues to throw up odd ideas; the preoccupation with “information” stems, she thinks, from the attempt to get round dualism. This curious “third stuff” is called into existence, as though, like a disembodied set of commands, it could act causally in the world. This echoes talk about *memes* and is also connected, of course, to the idea that the brain, like a computer, “processes information”. Without discussing him in detail, Midgley shares John Searle’s disdain for the notion that the brain is functionally equivalent to a computer. (17) Like Searle she thinks it peculiarly un-Darwinian to suppose that *consciousness* could have come into existence without its having any purpose. She shares his view that it is essentially a biological phenomenon, arising selectively from the challenges which faced complex organisms in responding flexibly to their environments, neither a “supernatural extra” nor a mere epiphenomenon. Characteristically, though, she finds the terms of much of this debate peculiar, insofar as the brain is often abstracted from the whole context of the bodies and behaviour of creatures: “Brains do not go about being conscious on their own”. (18) Similarly, the attempt by philosophers like David Chalmers to see consciousness as a “fundamental” feature of the world, alongside mass and energy, she sees as a typical example of “physics envy”-- as though a biological approach to mind were too messily complicated to be acceptable to “science”.

In *The Myths We Live By*, she tries again to disentangle science from the “myths” with which it has been historically associated, such as *progress* and *enlightenment*. These have disfigured evolutionary thought in the form of Social Darwinism, and continue to do so today, she thinks, in the attempt to depict religion as a “virus”. Despite this, physicists and cosmologists – or their publishers -- seem happy to make reference to “God” in the titles of their popular paperbacks, and scientists have sometimes liked to think of themselves as the “priesthood” of the secular age. The theological claim that God created man so that there would be someone to know Him and love Him, today finds reflection in the claim by some physicists that, through science, the universe has at last come to know and understand itself. Such scientific hubris is not new; the Roman poet Lucretius, she tells us, already saw science as a “benign weedkiller” which would get rid of religion. His modern incarnation is Daniel Dennett, for whom Darwinian natural selection is a “universal acid” which eats its way through every academic area it comes into contact with.(19) But for Midgley, such a notion is absurd; what use, she asks, would a universal acid be? We use acids selectively, by containing and limiting their effects according to our purpose; presumably Dennett wouldn’t put a universal acid in his car battery? Concepts, she suggests, like acids, have their particular uses, and an idea which purports to explain everything is likely to explain nothing.

In *Evolution as a Religion* she directly considers how far the idea of evolution has been used, not as an antidote for religion, but as a substitute for it. Our culture, she thinks, gives non-traditional faiths the opportunity to flourish, and they are seized upon hungrily by people whose lives lack meaning. Like Marxism, they have features which we think of as characteristically religious: priesthood,

prophecy, devotion, bigotry, heresy-hunting, sectarianism, ritual, and so on. She sees “evolutionism” in this way; by propounding “the creation myth of our age”, in telling us our origins, it shapes our view of what we are -- influencing not just our thoughts but our feelings and actions too. To call it a *myth*, she explains, is not to deny its truth, but to point to its symbolic power, which is independent of this. She was struck, for example, by the way in which books about evolution in the 1970’s had begun to contain “remarkably prophetic and metaphysical passages”, often in their final chapters. They looked forward to the arrival of a new species, a superman or “Omega Man” (20) who will think of us, his forbears, as something akin to primeval slime. The midwife of the new man is, of course, to be “genetic engineering”: a new alchemy, or *algeny* whose business will be the transformation of species. In Gregory Stock’s hymn to the future (21), “we ... will take control of evolution.....(and) no longer tolerate the tyranny of ageing and death.....we will ...reshape our motivation patterns and emotional responses”.

Such thinking, popularised in the 19th century by Spencer, reflects the Lamarckian picture of evolution as a sort of one-way upward escalator or ladder. It is a picture explicitly rejected by Darwin but one which has prevailed in the public mind and, surprisingly often, in the minds of scientists too. In the version propounded by Bernal in the 1930’s and given currency by H.G.Wells, eugenics and Comtean Positivism were stirred into the mix to produce a heady doctrine in which a priestly caste of scientists would direct mankind progressively forward. Unfortunately there is never any consensus among such utopians as to what the “products of the Omega factory” should be like, says Midgley; is the superman to be a supereinstein or a superbeethoven, and what about the superwoman? Here she echoes an old philosophical concern about the lesser giving rise to the greater: “could a child invent an adult?” she asks. Had previous centuries been given the chance to produce supermen, would we approve now of their chosen superqualities? Fascism and the Second World War made such visions a trifle embarrassing, so that more recent adherents to the “irresistible escalator” idea have tended to emphasise the narrower goal of increasing human *intelligence*. However, Midgley shares the misgivings of Gould and others about attempts to define intelligence as though it were a “timeless abstraction”, easily measurable, distinct, and heritable.

The impulse to climb onto the evolutionary escalator is often presented as though science itself required it. Midgley quotes Francis Crick in this context: “Provided mankind.....is not overrun by rabid anti-science fanatics, we can expect to see major efforts to improve the nature of man... within the next ten thousand years”.(22) She questions why such opposition must be *anti-science*, and why *science* must be committed to such a project. But she shows that professional philosophers, too, are not immune to this sort of thinking. An otherwise careful discussion by Jonathan Glover (23) talks about how “genetic engineering to modify our intellectual functions would have to be cautious and experimental.....Once it showed signs of working without bad side effects....some parents would choose to have children who would transcend our traditional limitations.” Midgley asks, “So who would be the experimental subjects up till then?” Again, Glover supposes that, in order to overcome human aggression, we might “give people a different set of genes to those they now have”. She remarks that such an extraordinary phrase “...presumably cannot mean an entire new set, like false teeth”. If Glover has in mind the introduction of some anti-aggressive genes, what are these, and where do we get them, she asks; if he means some thorough re-arrangement of existing genes in order to suppress aggression, such a proposal is so drastic that we have no idea how the attempt might turn out. Such notions are unfortunately influenced, she adds, by loose talk

about *gene pools* and *genetic soup*, as though our highly structured genetic make-up could be re-constituted at will.

Science, thinks Midgley, can never disentangle itself completely from the imaginative, *mythic* impulses which form its cultural context; the problem is what form these take and what their consequences are. She is encouraged here by Lovelock's notion of "Gaia" – the hypothesis that life on Earth actively keeps the surface conditions favourable for whatever is the contemporary ensemble of organisms. Writing about this in 1985, she was unsure about how this idea could be reconciled with current biology, since it was subject to attack by orthodox Darwinians. Lovelock now claims (24) that his ideas and those of formerly critical biologists and geologists have converged, resulting in *Gaia Theory* or *Earth System Science*. What most interests Midgley about Gaia is its mythic function. The moral it teaches is that human enterprises impinge on a vast and delicate mechanism which we only dimly understand, and that our future welfare – even survival – must depend on a subtle balance between all living things. If we personalise Gaia, she becomes like Nemesis; finding her system out of joint because of the greed and expansion of one of its elements, she ditches that element, as she has done many times before. For Midgley, Gaia "...is not in the least anthropocentric, and has no special interest in intelligence. She is..... impersonal, impartial Nature, not specially red in tooth and claw, but resolute to remain.... green and alive....." This message of the priority of the whole over the parts, and of caution and restraint over hubris, looks like an antidote to the poisonous influence of Social Darwinism and its offshoots which we have seen Midgley complain about. It is a repudiation, too, of the human exceptionalism asserted in traditional Christian thought, and reinforced in a new way by Descartes which has regarded the world apart from man as raw material for humanity to exploit.

Midgley thinks that feelings underpin religion as well as ethics: "...a hunger for meaning is central to our lives. It is not just an accidental, irrelevant emotion....It is the wider motive of which our theoretical curiosity is only a part". People need to have a picture of the cosmos as a whole; indeed, for many the only alternative to thinking of the universe as in some sense benign is to think of it as malign, as the plaything of Hardy's "President of the Immortals". Most of us lack the capacity to see it as having no purpose or direction whatever. That religion should have survived the onslaught of "scientific atheism" does not surprise her. One reason for the success of "Creationism" in the USA, she suggests, is that the alternative evolutionary story became too closely linked to a version of human psychology that people rightly find false and immoral. Despite her background and interests, Midgley says surprisingly little about traditional religion. Her father was an Anglican canon whose experiences as a chaplain in the First World War led him later to pacifism. In her memoir she writes fondly about Anglicanism but without any suggestion of continued practice as an adult. Her liking for Lovelock's Gaia, however, is obviously related to its religious potential. In an interview with Andrew Brown, (25) she suggests that the good thing about organised religion is precisely that it is not disorganised: "people are naturally ceremonial and ritualistic...."

Midgley's *Wickedness* comes closest to addressing a theological theme: *the problem of evil*. However, she sees it as "our problem, not God's"; "to blame God for making us capable of wrongdoing is beside the point. Since we are capable of it, what we need to do is to understand it." Understanding it, for Midgley, involves our rejecting another popular bit of metaphysical dualism -- the notion of an external invasive enemy force: Evil. However, identifying evil as springing from aspects of our human nature does not mean that we have to see it as a discrete, definite tendency in people, as

though some of us had an additional, or an alternative, predisposition we could label “wickedness”. We have noted earlier that she distinguishes wickedness from one such positive tendency, aggression. Her wider concern is to “recover for use the older...neglected idea of evil as negative... as the absence of good” Here, “good” refers to the virtues which we identify in our common moral language: generosity, courage, kindness, and the rest. These, says Midgley, are “positive capacities”; meanness, cowardice, and cruelty should be seen negatively, as the absence of those virtuous character traits. Seen in this way, selfishness is the (vicious) absence of that regard for the welfare of others that we call the virtue of altruism; it isn’t a fixed or a fundamental aspect of human motivation. Our predispositions are varied. They cannot all be given equal attention or priority. Cultures favour some virtues at the expense of others; some they neglect entirely. It is not difficult to see situations in which virtues like loyalty and altruism can become directed exclusively at one’s own tribe at the expense of others. They can be the motivating force behind terrible crimes, particularly when other virtues are relatively absent. We go wrong in our thinking, Midgley sadly notes, if we fail to see that even history’s monsters display virtues of some sort.

Many questions arise from all this which point to empirical investigation. AJ Ayer, reviewing *Wickedness*, calls it “a contribution to psychology”. Midgley would not be too unhappy with this description, as long as “psychology” is seen as a science of human *motivation*, and one wide enough to embrace contributions as varied as Darwin, Freud, and Stevenson’s *Jekyll and Hyde*.

Now approaching 90, Midgley continues to write and to enjoy debate. her “relaxed, undogmatic naturalism, not unlike that of Darwin himself” (26) has always been enlivened by her enjoyment of puncturing absurdity : “I keep thinking that I shall have no more to say – and then I find some wonderfully idiotic doctrine which I can contradict -- a negative approach ... but one that doesn’t seem to run out” (27)

Mary Midgley's Books

Beast and Man. The Roots of Human Nature	<i>Harvester Press</i>	1979
Heart and Mind. The Varieties of Moral Experience	<i>Harvester Press</i>	1981
Animals and Why They Matter	<i>Routledge</i>	1983
Wickedness	<i>ARK</i>	1984
Evolution as a Religion	<i>Routledge</i>	1985
Wisdom, Information, and Wonder	<i>Routledge</i>	1989
Can't We Make Moral Judgements?	<i>Routledge</i>	1991
Science as Salvation	<i>Routledge</i>	1992
The Ethical Primate	<i>Routledge</i>	1994
Utopians, Dolphins, and Computers	<i>Routledge</i>	1996
Science and Poetry	<i>Routledge</i>	2001
The Myths We Live By	<i>Routledge</i>	2003
The Owl of Minerva	<i>Routledge</i>	2005

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27. R. Skidelsky, in *The New Statesman*, July 7th, 2003
28. Interview with Brown, *op cit*.