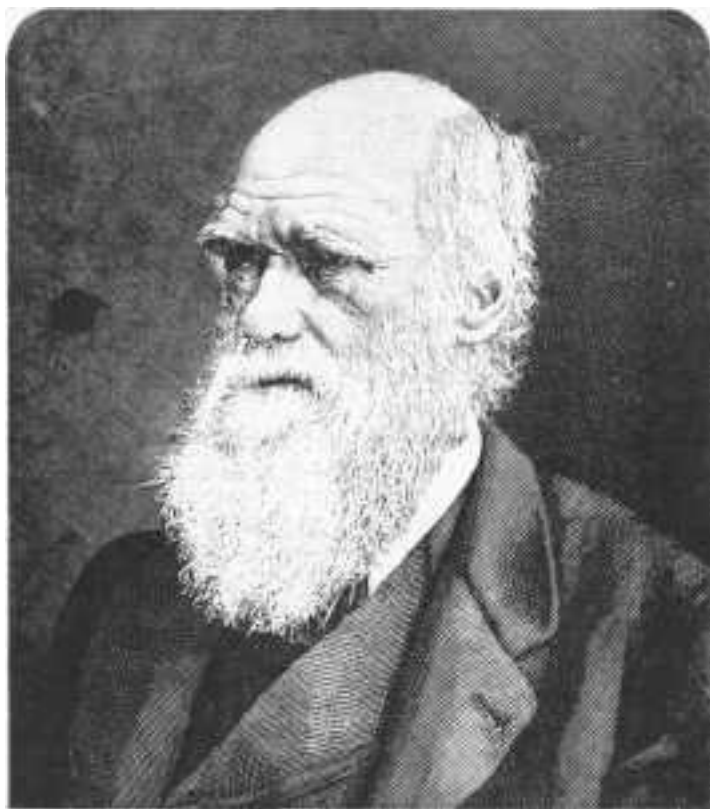


The Moral Majority suffered a major defeat in the recent US trial. But it is not good enough for Marxists to rally behind the scientific establishment.

Robert M Young
The Darwin Debate



In the centenary year of Darwin's death there seems to be almost as much furore as there was on the publication of his *On the Origin of Species* in 1859. Darwinism was accused of atheism, materialism and socialism — then as now. This in spite of the facts: Darwin was atheist (he was buried in Westminster Abbey) and rejected any connection between his views and socialism or political issues of any kind. **The** relation between biology and politics remains a vexed question for socialists. It involves a complex set of issues with boundaries which are not at all obvious or easy to draw in the present any more than they were in Victorian times.

In the recent Arkansas case, the issues weren't as clear as they were in 1859 or even in the 1925 'Monkey Trial' in Dayton, Tennessee, where Clarence Darrow, the great

defender of socialists, Wobblies and anarchists, managed to win a moral victory for a high school teacher, John Scopes. Scopes had illegally taught evolutionism — the Darwinian idea that 'man, along with other living organisms descended from lower forms by wholly natural processes. The Little Rock, Arkansas case pitted the liberal scientific establishment against a thinly-veiled version of religious fundamentalism — beliefs in the literal truth of the Bible. The veil was required because the US constitution separates church and state, thereby making it illegal to teach religion as part of the school curriculum. The religious view was therefore presented as 'creation science', which was said to need equal time with scientific evolutionism. In effect, the book of Genesis was to be taught *as* science,

on a par with what the conventional scientific texts say. In reality, creation science is based on the Christian view of God as **the** Creator and is an attack on science in general — biology (life science), geology (earth science), paleontology (the study of fossils) and cosmology (the study of the history and structure of the universe). Creation science presents as facts a separate ancestry for humans and other animals, a worldwide flood, sudden creation of the universe from nothing. The 'facts' of creation science **tell** us that the age of the earth is about 10,000 years — remarkably consistent with the biblical calculation — while the scientific consensus suggests that the earth is about 4.5 thousand million years old.

The Creationists

It is a familiar tactic for objectors to a scientific theory to take the gaps in the evidence and the unexplained phenomena more seriously than the positive evidence and range of phenomena which the theory does account for. Evolutionists claim to explain the gaps in the fossil record by the wearing away of the evidence by aeons of time, and some scientists are beginning to have their own doubts about the smooth continuity of evolutionary change. The creationists say that where the evidence is silent, nature points upwards to the Deity for the explanation of apparent, sudden discontinuities in **the** record. The Arkansas case was even more confusing since a distinguished astronomer and co-worker with Sir Fred Hoyle, Professor Chandra Wickramasinghe (of University College, Cardiff), appeared for the scientific creationists and argued that life came to earth from outer space and further that there has to have been a creator. The most eloquent of the scientific professional won hands down in the face of all this prevarication and confusion and persuaded the judge that creation science isn't science at all, but a mask for religion, and that the law which gave equal time to it was therefore unconstitutional. There **will** certainly be appeals as far as the US Supreme Court.

What are we to make of all this? Who are the white hats? There is no doubt that the advocates of creation science are ultra-conservative — part of the American New Right which makes Reagan look progressive by comparison. The creationists are worried about social instability and about sin. Biblical literalism is the first defence against modern thought, while evolutionism is seen as the central challenge to the biblical foundation of traditional values. One commentator on these issues said, 'Creationists relate evolution to everything from communism to the decline of the family to — at one time —

streaking.' It would be easy to conclude that these are merely enemies of socialism — obscurantists, flat earthers, rednecks, demagogues. They are all of those, but not, even so, unworthy of a second thought. Some of the enemies of fundamentalism are also enemies of the Left — sexploitation, the liberal consensus and, at the scientific level, sociobiology — the study of animal social behaviour, often making extrapolations to 'instinctive' behaviour in humans. Of course political positions opposed to the same thing can still be opposed to each other. It would be silly to suggest that the Left and the New Right are in coalition in opposing common enemies. But the point is worth dwelling on.

Historical background

Protestant fundamentalism has some of its historical roots in opposition to the territorial claims of science to explain the earth, life, human nature and society. In the early 19th century, fundamentalists dug their heels in and defended a value system which was under threat from geology, evolutionism, and deterministic psychology. They argued for the special creation and special value of life, humanity, free will. Human charity and responsibility were being defended against the onward march of science and technology, and the most rapacious period of urbanisation and the industrial revolution. A special basis for human dignity was being defended in the face of mechanical materialism in science, technology and industry. These protests were founded on a defence of the literal truth of the Bible as the divinely inspired word of God. But they had affinities with the protests of others who opposed the dehumanisation of industry, eg Thomas Carlyle in *Signs of the Times*, and of course Marx and Engels.

Marx and Engels didn't have a simple view on Darwinism. Their positions varied from Marx calling Darwin's theory 'a natural-scientific basis for the class struggle in history' to Engels saying that the whole Darwinist teaching of the struggle for existence 'is simply a transfer from society to living nature of Hobbes' doctrine of a war of all against all and of the bourgeoisie economic doctrine of competition' — 'a conjuror's trick'. In his speech at Marx's grave, Engels said 'Just as Darwin discovered the law of development of organic nature, so Marx discovered the law of development of human history.' There are three separate views here — a 'basis', a 'trick', and an analogy. Nor was the history of religious fundamentalism unequivocally opposed to the new industrial order. One shouldn't forget that the same fundamentalism was invoked to induce deference and work discipline in the form of

Methodism, as EP Thompson shows in *The Making of the English Working Class*.

Deference to science

I'm trying to show that in the past as well as the present, the battlelines which are of interest to Marxists are not easy to draw. In the current controversy it would seem obvious to side with the scientists against the creationists, but the situation isn't so tidy. There is a long tradition on the Left of deference to natural science and of looking to it to provide guides for socialist theory and practice — as though scientific priorities, categories and patronage didn't come from general social values in the first place. As Bukharin pointed out, the practice of getting scientific knowledge is the practice of material labour carried on in a particular form of investigating nature. Science is not self-sufficient, but part of the general process of production.

The resonances between scientific concepts and social categories are very obvious when we consider some of the working vocabulary of liberal theory and of biological reductionism, which offers the instinctive behaviour of ants, geese, chickens, chimps and baboons as the basis for many aspects of what we do as 'naked apes'. Here is a list of terms drawn from the arguments in EO Wilson's *Sociobiology: The New Synthesis* — division of labour (sexual and task), hierarchy, competitiveness, domination/submission, peck order, aggression, selfishness/altruism, rank, caste, role, worker, slave, soldier, queen, host, harem, promiscuous, mob, combat, spite, bachelor, jealousy, territoriality, leadership, indoctrinability, elites. Looking a bit wider to Richard Dawkin's *The Selfish Gene* we find cheat, sucker, grudger; wider still we find nepotism, philandering, rape. As Engels said of such ways of interpreting nature: 'When this conjuror's trick has been performed, the same theories are transformed back again from organic nature into history, and it is now claimed that their validity as eternal laws of human society has been proved.' Liberal versions of biological reductionism such as those expressed in sociobiology and ethology (the study of animal behaviour) are indeed taken up by elitists, eg, Professor Eysenck's belief in inherited levels of mental ability, and these as well as other biological studies of behaviour are used by racists, for example in National Front literature. They provide 'scientific evidence' in support of their reactionary social policies. Studies of other organisms are invoked to explain the limits of human social life and to provide subtle justifications for pessimism about human nature and society.



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Evolutionism and Marxism.

This is not to say that biology and evolutionism have no relevance for Marxists. Aspects of evolutionism are perfectly consistent with Marxism. The explanation of the origins of humankind and of mind by purely natural forces was, and remains, as welcome to Marxists as to any other secularists. The sources of value and responsibility are not to be found in a separate mental realm or in an immortal soul, much less in the inspired words of the Bible. Marxism is a 'this-worldly' rather than an 'other-worldly' philosophy. It is also a materialism with a definition of matter and its potential which is much richer than the impoverished idea of matter left over in the mind-body dualism which puts all meaning and purpose in the minds of God and people. Marx stressed neither mind nor matter, but the engagement between people and nature — a transformative relationship based on human labour. Labour is neither nature nor culture but their matrix. Human nature is not an eternal essence or a consequence of biological inevitabilities, but an ensemble of social relations — an historical product and an historical project. So, while the naturalism, materialism and this-worldliness of Darwin-



Scientific Monkey: 'Cut it off short, Tim; I can't afford to await developments before I can take my proper position in Society.'

From *Harper's Bazaar*, 16 September 1876.

ian evolution are acceptable to Marxists, this does not mean that natural explanations take over from historical ones. Put another way, in Marxist approaches to humanity, genetics doesn't replace human labour. *Homo faber* — 'man' the maker — does not bow to biological inevitability or to seeking out evolutionary bases for accepting the social *status quo*: 'You can't change human nature'.

There has been a recent revival of advocacy of close attention to the biological limits of human nature among some Marxists. It has been pointed out that we need to root our conceptions of the human species in biological givens. This is a salutary warning against the romantic belief that we are free spirits and can decide our futures by free choice and by just trying harder. However, it can be argued that it refers matters to 'first nature' (biology) which are not in the domain of deterministic laws, but which are attributable to 'second nature' (deeply embedded social learning). 'Second nature' is very

refractory and difficult to change, but it is not as much so as genuine biological givens like eye colour or skin pigmentation. Another current within Marxism which stresses the alliance of its theoretical basis with science is the defence of aspects of philosophical 'realism' — with a more or less simple one-to-one correspondence between the external world and our experiences of it. Still another current which allies Marxism closely with scientific thinking is the revival of 'dialectical materialism' which takes Marxist categories and argues that they characterise the deepest reality in the natural world eg change as a dialectical process, the transformation from quantity into quality. These currents — stressing the biological roots of human nature, and the philosophi-

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cal ideas of realism and dialectical materialism — tempt socialists to think that there can be no rift between the claims of working scientists and politically correct thinking.

It is difficult, however, to connect these philosophical arguments with the political struggles of working biologists. Biological research, like all other practices, arises in a social order and reflects the priorities and assumptions of that order. This is obvious in the case of EO Wilson, and also in IQ studies, but it is not so obvious in the case of Darwin, whose philosophy of nature was, even so, very much part of a model of progress through struggle — competition, pain, hunger, famine — which he drew from Malthusianism in formulating his theory of evolution by natural selection. When he turned to human beings, Darwin was also very much a person of his own times and held views on other races which would not be acceptable to Marxists.

Terms of the debate

The people who took part in the 19th century Darwinian debate, the 1925 Scopes trial and the 1982 Little Rock trial, were all taking up positions in an ideological debate on the terrain of bourgeois society, and all are easily localised on a familiar un-Marxist political continuum. The most eloquent defender of scientific evolutionism, Stephen J Gould, is an avowedly non-Marxist radical — on the left of the scientific/political consensus but working well and truly within it. It is important to be aware that Marxists working in the scientific and political struggles in America find that the theory and practice of people occupying that niche reflect a different conception of nature, human nature and political struggle from their own.

Put another way, it would be a mistake, be it one often made by the Left, to side uncritically with the scientific position in the Little Rock Trial in opposition to the creation scientists. Given that choice, one may well be inclined to oppose equal time for creation science, but as so often happens, that leaves us appearing to advocate a position which offers more to an enlightened version of the *status quo* than to socialist priorities and the potential role of science in socialist society. That question is not one on the agenda of the liberals and radicals in biology and the study of animal behaviour.

I would say, then, that no Marxist should want to look to biology for a guide to the formulation of social and political goals and strategies, ie, to the limits of human nature. It seems no more fruitful to look to natural science than to the Bible for justification of ethical, social and political beliefs. The 'science' which is most relevant to Marxist approaches to these matters is the science of history. There are of course both natural and human aspects of history, but these must be seen as mutually conditioned, whatever the scientific creationists, the scientific evolutionists, or the scientific Marxists say. •

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