

Socialism and Darwinism

Daphne Liddle

New Communist Party of Britain

THE WORLD has recently been commemorating the 200th anniversary of the birth of Charles Darwin, a timid naturalist who rocked the scientific establishment because he could not deny to himself or the world the plain evidence of his scientific observations: evidence of how species evolve from one thing to another.

In 1831, as a new theology graduate, he undertook a five-year voyage on the ship 'The Beagle' as a naturalist, studying plant and animal specimens from all the places this ship visited. In the Galapagos Islands in the Pacific he noted that the different islands had very similar but different species of many animals. He noted that the finches in one island had short strong beaks – ideal for cracking seeds, while those on another had longer, thinner beaks, ideal for rooting out insects. Natural selection had produced 13 different species.

He could not help but conclude that they had a common ancestor but, isolated by the ocean and prevented from breeding together, they had evolved to adapt to the best food resources on each island and so became separate sub-species.

The implication was that all species of plants and animals have descended from common ancestors, originally primitive, single-cell organisms, and have diversified to thrive under different and constantly changing environmental conditions.

This was in direct confrontation to the words of the Bible, which proclaims in the book of Genesis that all living things were created by God exactly as they appear today, and that since this creation there have never been any changes.

Darwin knew the uproar his findings would cause and delayed publishing for around 20 years, until 1859; he did not publish his famous *The Origins of the Species*, when he discovered another scientist, Alfred Russell Wallace, was about to publish a very similar study.

One of the first to congratulate him was Karl Marx, who sent him a copy of *Das Kapital*, which Darwin reportedly never got around to reading. Marx pointed out that Darwin's god-free account of the evolution of life in all its diversity was consistent with his own account of the evolution of human society – that the general theory of nature was converging with the general theory of society.

But Marx and Engels did not agree with all Darwin's subsequent assertions. In particular they contradicted his idea that evolution is a gradual process, asserting instead that it was a dialectical process with long slow build-ups to sudden, rapid changes.

Darwin was convinced that before long fossils would provide evidence of long, slow periods of change from one species to others; that there would be evidence of giraffes with medium length necks and so on.

The intermediate stages of evolution are gradually coming to light but they are a lot rarer because, in evolutionary terms, the changes happened dialectically and rapidly (thousands of years nevertheless). And where the changes were prompted by sudden changes in the environment, they occurred within a few generations.

The fossil record shows six major mass extinctions took place at the beginning and end of the Cambrian period (600 million and 500 million years ago respectively), and the ends of the Devonian (345 million years ago), the Permian (225 million), the Triassic (180 million) and the Cretaceous (63 million).

In circumstances where there is rapid change of the environment many species are wiped out completely. In some species just a few will survive that have some genetic variation that makes them better adapted to cope with the new environment. The survivors have only each other to breed with and so the crucial genetic variations – and other variations that may be neutral to survival – rapidly become a defining characteristic of the species and quickly become so exaggerated that a new species is formed.

The Russian Marxist Plekhanov commented: “Modern evolutionists introduce a considerable admixture of conservatism into their teaching. They want to prove that there are no leaps either in nature or in history. Dialectics, on the other hand, knows full well that in nature and also in human thought and history leaps are inevitable. But it does not overlook the undeniable fact that the same uninterrupted process is at work in all phases of change. It only endeavors to make clear to itself the series of conditions under which gradual change must necessarily lead to a leap.”

Change can also come through geographical isolation where a small population has become separated from the main population at its periphery. This form of speciation, called allopatry, allows a rapid evolution to take place. As soon as an ancestral species is separated, the inter-breeding stops. Any genetic changes build up separately. However, in the smaller population, genetic variations can spread very quickly in comparison to the ancestral group.

This can be brought about by natural selection responding to changing climatic and geographical factors. As the two populations diverge, they eventually reach a point where two species are formed. Quantitative changes have given rise to a qualitative transformation. If they ever meet in the future, then so genetically divergent are they, that they are unable to breed successfully.

As Engels commented: “The organic process of development, both of the individual and of species, by differentiation, is the most striking test of rational dialectics.” And, “The further physiology develops, the more important for it becomes these incessant, infinitely small changes, and hence the more important for it also the consideration of differences within identity, and the old abstract standpoint of formal identity, that an organic being is to be treated as something simply identical with itself, as something constant, becomes out of date.” Engels then concludes: “If there the individuals which become adapted

survive and develop into a new species by continually increasing adaption, while the other more stable individuals die away and finally die out, and with them the imperfect intermediate stages, then this can and does proceed without any Malthusianism, and if the latter should occur at all it makes no change to the process, at most it can accelerate it.”

Right from the first publication of *The Origins of the Species*, capitalist theoreticians have tried to use it to justify the brutal and highly competitive society they have created.

The followers of Thomas Malthus argued, in 1789, that in the “Battle of Life” there will always be losers; there will always be people who are poor and starving. To try to correct this by giving charity or welfare to the poor will only encourage them to breed more. “Population, when unchecked, increases in a geometrical ratio. Subsistence only increases in an arithmetical ratio.” (Thomas Robert Malthus, *The Principle of Population*.) Ultimately, he argues, this will lead to far more people dying in poverty and starvation. He was obsessed by the dangers of population growth.

This fitted in with Darwin’s idea that natural selection operates through the survival of only the fittest and, though nature was cruel, the species would not be able to progress if those with “inferior” genes were artificially helped to survive and pass on their “weaknesses” to future generations.

Since then many right-wing thinkers have tried to use this to justify the class system, arguing that the rich and powerful have risen to the top of society because they are genetically superior – not just because they are more greedy and aggressive. In modern times they have argued that greed and aggressiveness are positive and progressive traits.

The eugenicists, including the Nazis, have argued that it is necessary to intervene artificially to prevent “inferior” specimens from breeding, either by forcibly sterilising them or simply murdering them. This policy was exposed when the Nazis took it to its logical conclusion in the gas chambers and the Holocaust. But even after that some governments in Scandinavia, the United States, Switzerland and Australia still continued until just a few decades ago in forcibly sterilising young people who were deemed “inferior”. These included people with learning difficulties, Gypsies, Australian Aborigines and other minority ethnic groups.

But if Darwin demonstrated anything it is that, in an uncertain and ever changing environment, any species needs the widest possible gene pool to stand the best chance of survival. The eugenicists, by trying to narrow the gene pool, make the human race less likely to survive. Our strength lies in our diversity; each different individual brings their own strength to the collective while the collective gives support to each individual.

Darwin had read Malthus and Adam Smith, the founder of capitalist economics theory, who argued that competition in the market place led to competent and efficient producers of commodities at a low price prospering while inefficient producers selling at high prices would go out of business – and in this way the best methods of production would prevail over the inferior.

Engels commented: “Darwin did not know what a bitter satire he wrote on mankind, and especially on his countrymen, when he showed that free competition, the struggle for existence, which the economists celebrate as the highest historical achievement, is the normal state of the Animal Kingdom.”

But Darwin spoke of “fitness” in relation only to a given environment, not to an absolute scale of perfection. In fact, neither of the two terms with which Darwin’s name is chiefly associated, “evolution” and “survival of the fittest,” occurs in early editions of *The Origins of the Species*, where his key ideas are expressed by the words “mutability” and “natural selection”.

On the 18th June 1862, Marx wrote to Engels: “Darwin, whom I have looked up again, amuses me when he says he is applying the ‘Malthusian’ theory also to plants and animals, as if with Mr Malthus the whole point were not that he does not apply the theory to plants and animals but only to human beings — and with geometrical progression — as opposed to plants and animals.” Engels also pointed out: “Darwin’s mistake lies precisely in lumping together in ‘natural selection’ or the ‘survival of the fittest’, two absolutely separate things:

“1. Selection by the pressure of over-population, where perhaps the strongest survive in the first place, but where the weakest in many respects can also do so.

“2. Selection by greater capacity of adaption to altered circumstances, where the survivors are better suited to these circumstances, but where this adaption as a whole can mean regress just as well as progress (for adaption to parasitic life is always regress).

“The main thing: that each advance in organic evolution is at the same time a regression, fixing one-sided evolution and excluding evolution along many other directions. This, however, is a basic law.”

The Malthusians compare humans to flies, frogs and other species that produce hundreds of offspring, most of which will die before reaching adulthood, so that, by chance, a few will survive to keep the species going.

But the human race is very different. We produce mostly one offspring at a time which reaches maturity slowly. We are born very vulnerable with our brains still developing. Our behaviour as adults is governed less by innate instinct than by what we have learned as we grow up. Our experiences as children fit us to cope with the environment we find ourselves in. This makes us adaptable to cope with virtually any environment.

But our long, highly dependent childhood means we need a collective, collaborative society to live in. A frog or a fly only needs to survive long enough to mate, deposit eggs and its genes are successfully passed on to the next generation. Humans need not only to mate but also to sustain a pregnancy, survive childbirth and to rear their offspring. They cannot do this alone without the help and support of a wider family or society. And the

only creature we know of that lives a significant time after it has ceased to be able to reproduce itself is the human female, a clear indication that babies with living grandmothers stand a better chance of survival than those without. It also indicates that human survival depends on the wider family support – not just that of the narrow one-man-and-one-woman nuclear family that is a product of bourgeois society.

And in turn our well developed brains, used collectively, have enabled the human race to adapt and change our environment (not always for the better). The ability to build shelters, make clothes and use fire means that humans can live in far colder climates than our primate ancestors. We can pipe water and transport food over long distances; we can sow and harvest food plants and husband animals; we can produce and exchange useful tools and artefacts; we can make and use medicines and so on.

History has shown that Malthus was wrong to say that human population growth leads to poorer conditions and increased poverty and starvation.

The population of Europe has risen steadily from the tenth to the 20th century and living standards have also risen. When the population was temporarily reduced it had nothing to do with food shortages. The 30 Years War reduced the population of Germany by a half but the causes were political – nothing to do with too many people or not enough food. The dramatic fall in the population of Ireland during the potato famine was not caused by excess population or insufficient food – the English owners of most of Ireland's best land were shipping good wheat to England from Ireland throughout – but by the politics of capitalism. Following sound free market principles, the "Liberal" government in London refused to introduce any measure which might interfere with free trade or prices, and cancelled the supply of cheap maize to the Irish, therefore condemning millions to death by starvation.

The Malthusian principles of the English government were defended by Charles Grenville, secretary to the Privy Council thus: "...The state of Ireland is to the last degree deplorable, and enough to induce despair: such general disorganisation and demoralisation, a people with rare exceptions besotted with obstinacy and indolence, reckless and savage — all from high to low intent on doing as little and getting as much as they can, unwilling to rouse and exert themselves, looking to this country for succour, and snarling at the succour which they get; the masses brutal, deceitful and idle, the whole state of things contradictory and paradoxical.

"While menaced with the continuance of famine next year, they will not cultivate the ground, and it lies unsown and untilled. There is no doubt that the people never were so well off on the whole as they have been this year of famine. Nobody will pay rent, and the savings banks are overflowing. With the money they get from our relief funds they buy arms instead of food, and then shoot the officers who are sent over to regulate the distribution of relief. While they crowd to the overseers with demands for employment, the landowners cannot produce hands, and sturdy beggars calling themselves destitute are apprehended with large sums in their pockets." (28th November, 1846).

This obscene lie was used to justify the greed of the English landowners, who had stolen the land from the Irish and driven them to the infertile margins to die of hunger. The same lie is now being used to condemn the Palestinians.

In the 1980s the leading capitalist thinkers, after espousing Keynesianism for a few decades, reverted to absolute adherence to the “free market” as the most progressive force in society. And along with it they revived Malthusianism, blaming the poor for their poverty and justifying their own greed and oppression of the working class. They presented again a picture of human beings locked in selfish strife, the Battle for Life with each against all and all against each.

John Forbes Nash, a mathematician, who later was committed to an asylum, devised “Game Theory”, full of complicated formulae that were complete rubbish and Richard Dawkins wrote *The Selfish Gene*, trying to use Darwinism to justify capitalist greed. Dawkins has great problems with human altruism; he cannot understand why people help each other in ways that do not directly benefit each other. In the end he leaves it as a temporary aberration, people doing favours for others only in the hope of getting something back in return.

The political and economic policies of western governments were based on the crazy ideas of Nash – the assumption that everyone would cheat everyone else if they could get away with it. Altruism, idealism and selflessness were looked on with great suspicion; politicians who claimed to be working for the good of anyone but themselves were completely distrusted. Greed and the accumulation of wealth were seen as the only sane goals. And we can see how this has inevitably led to the current economic crisis.

But altruism is innate in humans; we could not survive without it. Our slow growing, intelligent children would never survive their infancy without the existence of society to protect them and their vulnerable mothers. And society would not survive without the accumulated knowledge and wisdom of the elderly. We are all interdependent. If there ever were any totally selfish groups of humans as Dawkins described, they perished long ago.

The communist way of living is far closer to our inherited characteristics than capitalism is.