

# Marx and Darwin: Two great revolutionary thinkers of the nineteenth century

## Part 3

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*This is the conclusion of a three-part series comprising a lecture by WSWS correspondent Chris Talbot to meetings of the International Students for Social Equality in Britain. Part 1 was posted on June 17 and Part 2 on June 18.*

### Evolutionary Psychology versus Marxism

Now we turn to areas where there have apparently been conflicts between Darwinian biology and Marxism. Firstly we consider those scientists who claim that biology can be used to explain all social phenomena. This was a strong tendency in the 19<sup>th</sup> century after Charles Darwin's *On the Origin of Species* appeared.

Here we link up to Marx's comment in the footnote I cited at the start. Marx writes about what he calls "the abstract materialism of natural scientists." He had in mind such figures as Ludwig Buchner, the German scientist who popularised atheism and a crude version of materialism. He attempted to apply concepts from natural science to history, of which he understood little. For Marx, social and ideological processes needed to be understood in terms of the "productive organs of man" and a materialist theory of history, and not by the application of abstract biological concepts.

Buchner was one of the first to apply Darwin's theory to society, and by no means the most reactionary. There developed theories of society, often grouped under the heading of Social Darwinism and associated with Herbert Spencer and Darwin's cousin Francis Galton, the founder of the eugenics movement. These views became popular in establishment circles towards the end of the 19<sup>th</sup> and into the 20<sup>th</sup> century. It was claimed that the ruling class had come to the top of society because it was biologically fitter and that the poorer specimens in the working class, who tended to breed faster, needed to have their numbers curtailed. Such noxious views were often associated with racism in the period of the rise of colonialism and were later espoused by the Nazis.

The application of biology to social science was opposed by Karl Marx and Friedrich Engels, later Marxists and the broader socialist movement that developed in the wake of the Russian Revolution. It was generally accepted, even by those who were not Marxists, that society could not be crudely equated with the natural world, and that society has its own specific characteristics. You wouldn't attempt to apply particle physics directly to analyze the molecular processes in the cell—why should you

attempt to apply biological theories to society?

Since the 1970s there has been a revival of attempts to apply biology directly to social questions. First there was sociobiology and later Evolutionary Psychology came on the scene. Why did this discredited agenda re-emerge? That is a complex question, but fundamentally I think it can only be explained as a result of the decline in socialist consciousness in the period after World War II, particularly resulting from the betrayals of Stalinism [19].

This is not the subject of this talk, but it is important to note the considerable amount of ignorance concerning history and society among scientists in the field of Evolutionary Psychology, which probably exceeds that of Buchner and his contemporaries.

Consider the much publicised views of Steven Pinker. In *The Blank Slate* [20] he demonstrates his ignorance of Marx and Engels' work. Pinker lumps them together with Stalin, Mao Zedong and Pol Pot, holding them responsible for millions of deaths in the manner of a Cold War ideologist.

Pinker puts forward the view that much of social theory—and he includes Marxism in this—sees the human mind as a blank slate that can simply be moulded by society. This is a caricature of the views of Marx and Engels. They explained as early as 1845 that "the human essence is no abstraction inherent in each single individual. In its reality it is the ensemble of the social relations."

They rejected the idea that human society could be understood on the basis of abstract individual nature, but they never denied that some features of human behaviour could be inherited and even descended from our animal past. They insisted, however, that this was not the "essence" of the question. Engels' unfinished draft, *The Part Played by Labour in the Transition from Ape to Man* [21], is important in this respect. Engels clearly conceived of humans, with their distinctive use of tools, as evolving from apes by natural selection. Labour and also speech, argued Engels, gave an advantage to a large brain and consciousness in emerging man. He was perfectly clear about the biological basis of human behaviour, but when society emerged, "a new element" had come into being.

The 1970s saw the revival of abstract theories of "intelligence" and IQ testing. Most notoriously there were attempts to correlate IQ with race. These theories and their long history were completely dissected and demolished by Stephen Jay Gould in *The Mismeasure of Man* [22], but they have had something of a revival with Pinker and others in the new guise of Evolutionary Psychology, responding no doubt to the wave of free market individualism that became widespread after the collapse of the Soviet Union.

Pinker expounds a popular version of Evolutionary Psychology, claiming that "human nature" is made up of various psychological

mechanisms or “mental organs” that evolved when humans were hunter-gatherers in the Pleistocene Period (1.8 million to 10,000 years ago). He claims that it is scientifically proven that there is:

The partial heritability of intelligence, conscientiousness, and antisocial tendencies, implying that some degree of inequality will arise even in perfectly fair economic systems, and that we therefore face an inherent trade-off between equality and freedom [23].

It is also proven, he claims, that there is “primacy of family ties in all human societies”, that there is a “universality of dominance and violence across human societies” and that there exists “ethnocentrism and other forms of group-against-group hostility across societies.” [24]

Needless to say, when the methodology behind these “proven” assertions is taken apart, it is found to be as suspect as the earlier theories that Gould demolished. David J Buller, a Professor at Northern Illinois, goes through four fallacies of Evolutionary Psychology in January’s special Evolution edition of *Scientific American*. For example, evolutionary psychologists claim that there is a built-in difference between men and women in regard to jealousy. They argue that a higher proportion of men find sexual infidelity to be more distressing than emotional infidelity. Buller challenges this. He demonstrates that this view is based on surveys carried out in the United States. But in Germany only about a quarter of males find sexual infidelity worse than emotional infidelity.

Buller calls for an “accurate understanding of how human psychology is influenced by evolution” [25]. He is not a Marxist, but we would agree with his conclusion that we should “abandon not only the quest for human nature but the very idea of human nature itself,” in the sense of the fixed “psychological mechanisms” espoused by popular Evolutionary Psychology.

### Radical scientists generate confusion

Evolutionary psychology and its antecedent socio-biology were vigorously opposed by radical scientists, often calling themselves Marxists. Biologists like Richard Lewontin in the US and Steven Rose in the UK, as well as the US palaeontologist Stephen Jay Gould, were part of an organization called Science for the People. In 1975 they sent a letter to the *New York Review of Books* accusing socio-biology of fascist tendencies redolent of the Nazis. Demonstrations were held and lectures interrupted. It was a hysterical response. The leading sociobiologist E. O. Wilson was one of the victims of their campaign. He had water poured over his head in a famous protest at one of his lectures. He was not a fascist at all, but a good natural scientist with very little understanding of human society. His specialism was social insects.

Science is necessarily a controversial business and the radical scientists raised many important biological questions on which I do not intend to comment. What I want to raise here are the questions that relate to Marxism. I believe that Lewontin, Rose and Gould put forward a distorted viewpoint that is contrary to Marx and Engels’ attitude to science. Their intervention has created a lot of confusion. Their approach to the question of science arose out of the radical politics they espoused. They were influenced by a form of Maoism, and by the ideas of the Frankfurt School that we have been giving some attention to on the *World Socialist Web Site* after attacks on us from this direction. Gould moved away from his earlier radical politics, but Lewontin and Rose still hold such views today.

Here is Richard Lewontin in his book, *The Doctrine of DNA* [26]:

Despite its claims to be above society, science, like the Church before it, is a supremely social institution, reflecting and reinforcing the dominant values and views of society at each historical epoch.

In his most recent book [27], co-authored with Richard Levins, we find

science described as “a commoditized expression of liberal European capitalist masculinist interests and ideologies.” The last section of the book is a paean to what is called “Cuban socialist science”, contrasted to the “bourgeois” science in the western world.

Lewontin even goes so far as to say that the capitalist ideology of individuals competing with one another has predominated throughout science from the Scientific Revolution to the present day. In *The Doctrine of DNA* he writes:

This atomized view of society is matched by a new view of nature, the reductionist view . . . the individual bits and pieces, the atoms, molecules, cells and genes are the causes of the properties of the whole objects and must be separately studied . . . [28]

Perhaps there is a grain of truth here in that the mechanical outlook from the first most successful branch of science, physics, did tend to predominate throughout science, at least up to the first part of the 19<sup>th</sup> century. When Marx complained about “abstract” materialists, he saw them as the degenerate outcome of this tradition. Engels explains in his writings on philosophy the limitations of the mechanical version of materialism that had developed in the Enlightenment. This was why the historical natural science of Darwin was of such importance to Marx and Engels.

However, taken for the whole of science under capitalism I think that Lewontin’s conception is false and it leads to a view, now very prevalent in the humanities, that objectivity in science is not possible.

Individual scientists hold all kinds of political and philosophical views, often reflecting their position in society as middle class academics. Many of them are pillars of the establishment. It is also true that, as Trotsky once explained [29], the ideological outlook of the capitalist class can influence the direction of science. This is especially so in the social sciences, where the need to justify current society means that little is accomplished. We can see that very clearly in economics. But Trotsky stressed that in the natural sciences:

the need to know nature is imposed upon men by their need to subordinate nature to themselves. Any digressions in this sphere from objective relationships, which are determined by the property of matter itself, are corrected by practical experience. [30]

The approach of Lewontin et al has had its concomitant in the history of science. Here there have emerged schools of thought such as the Sociology of Scientific Knowledge (SSK) that have placed enormous weight on the social context in which science is carried out. This often has the result of making scientific knowledge appear to be entirely relative to particular classes or social groups, undermining all objectivity and challenging the materialist basis of scientific thought and the conception that science does reflect, to some degree of approximation, the world that exists outside human thoughts and sensations.

One example of this overwhelmingly ideological approach to science and scientists is to be found in the book *The Scientific Origins of National Socialism*, by Daniel Gasman, professor of history at CUNY [31]. It gave a one-sided biography of Ernst Haeckel, the 19<sup>th</sup> century German biologist. Stephen Jay Gould was heavily influenced by this book.

Gasman attempted to:

trace certain key features of National Socialism back to the conception of science and to the social Darwinism of Ernst Haeckel, Germany’s most famous nineteenth-century biologist. [32]

By placing all emphasis on Haeckel’s social and political views and making him partly responsible for Nazism, there is no hope of making an objective assessment of the scientific contribution of this important scientist or of biology in general in that period. Many of the biologists of the late 19<sup>th</sup> and early 20<sup>th</sup> century were in favour of eugenics and many held views on race that we would find abhorrent. The rise of fascism in Germany can only be adequately dealt with by analyzing the economic and political developments of the 20<sup>th</sup> century [33]. Fortunately, other

biographies of Haeckel have recently appeared and it is possible to gain a more objective view of his scientific contribution [34].

It should be pointed out that once responsibility for Nazism is placed on Haeckel, it can be easily extended to Darwin himself. This is the view of historian Richard Weikart who has written a book entitled *From Darwin to Hitler* [35]. Here we have turned full circle. Weikart is a fellow of the Discovery Institute, the main centre for the propagation of Intelligent Design.

I hope that I have been able to show you something of the connections between Darwin and Marx and to see them both as central to the development of science in the 19<sup>th</sup> century, which of necessity, had to take a historical standpoint in relation to both biology and society. I have also insisted that it is necessary to revive the approach to science in its wider social significance, that dates back to the Enlightenment, as an approach to nature and society that enables mankind to understand their laws, causes and mechanisms in order to change them.

Biology has made enormous strides in the last decade and there has been some growth of interest in Darwin, despite the government's educational policies. But I think that a renewed interest in the vast work of Marx and Engels is also essential, and the application of Marxist theory to build a socialist movement is most urgent, given the huge social issues we face—massive social inequality, poverty for much of the world, the growing impact from global warming, and now a massive recession with a future of unemployment and economic stagnation.

*Concluded*

Footnotes:

[19] See David North, "After the Demise of the USSR, The Struggle for Marxism and the Tasks of the Fourth International", *Fourth International*, Vol 19, No 1, 1992.

[20] Steven Pinker, *The Blank Slate*, Allen Lane, London, 2002.

[21] <http://www.marxists.org/archive/marx/works/1876/part-played-labour/index.htm>

[22] Stephen Jay Gould, *The Mismeasure of Man* (Revised Edition), Penguin, London, 1997.

[23] Steven Pinker, *The Blank Slate*, p 294.

[24] *ibid*.

[25] David J. Buller, *Adapting Minds*, MIT Press, London, 2005.

[26] Richard Lewontin, *Biology as Ideology: The Doctrine of DNA*, Penguin, London, 1993, p 9.

[27] Richard Lewontin and Richard Levins, *Biology Under the Influence*, Monthly Review Press, New York, 2007, p 93.

[28] Richard Lewontin, *Biology as Ideology: The Doctrine of DNA*, p 12

[29] Leon Trotsky, Culture and Socialism,

<http://www.wsws.org/articles/2008/oct2008/cult-o23.shtml>

[30] Leon Trotsky, Dialectical Materialism and Science, in *Problems of Everyday Life*, Pathfinder, New York, p 209. Also

<http://www2.cddc.vt.edu/marxists/archive/trotsky/1925/09/science.htm>

[31] Daniel Gasman, *The Scientific Origins of National Socialism*, Elsevier, New York, 1971.

[32] *ibid*, p ix.

[33] see David North, *Anti-Semitism, Fascism and the Holocaust: A critical review of Daniel Goldhagen's "Hitler's Willing Executioners"*, Labor Publications, 1997.

[34] Robert J. Richards, *The Tragic Sense of Life, Ernst Haeckel and the Struggle over Evolutionary Thought*, University of Chicago Press, Chicago, 2008, and Sander Gliboff, *HG Bronn, Ernst Haeckel, and the Origins of German Darwinism*, MIT Press, Cambridge, Mass., 2008.

[35] Richard Weikart, *From Darwin to Hitler: Evolutionary Ethics, Eugenics, and Racism in Germany*, Palgrave Macmillan, New York, 2004.



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