

# SCIENCE AND MARXISM

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*The ruling ideas are the ideas of the ruling class.—Marx*

Marx and Engels by subjecting every notion, idea, or theory to rigorous class analysis showed that no idea, however abstract and universal it may appear, can be free from the class prejudice. It will have the class stamp. It is of course fairly easy to establish this in the realm of theories concerned with politics, history, sociology, economics, anthropology, art and literature. However, it is not that easy to discover that kind of ideological tilt in the area of physical sciences, though they too cannot be free from such class slant or stamp at a different level. However, the Marxists have not extended this general approach to the so-called physical or natural sciences. At that point, the Marxists virtually become positivists. The area of physical sciences, engineering and technologies have become the most forbidden territory for class analysis. This area appears almost above class prejudices. For instance, when Stalin says that there cannot be a bourgeois class train or a capitalist class machine, he is clearly espousing a positivist, non-class and non-valuational approach towards physical sciences and technologies. His stand towards language too was very similar. In all these respects, Mao is unquestionably different from Stalin.

However, if not the first attempt, certainly a serious attempt was made by Christopher Caudwell to expose the unconscious class assumptions (ideological frame) embedded in the foundations of the several sciences—all of which were the products of the class society. Such an endeavour resulted in four works (*Studies in a Dying Culture*, *Further Studies in a Dying Culture*; *Illusion and Reality* and *Crisis in Physics*). His work, particularly *Crisis in Physics* became the subject of serious debate amidst the Marxist scientists of Britain and the communist party members. J D Bernal, the renowned Marxist scientist of Britain, as well as Maurice Cornforth, the official Marxist philosopher of the British communist party, dismissed the work of Caudwell almost with contempt. At the same time, they very much accepted the work of Jack Lindsay ("Marxism and Contemporary Science"), which did not enter the forbidden territory. Even today, the situation remains more or less the same.

There were also Marxists in England, who hailed the work of Caudwell. Hyman Levy, the mathematician, J B S Haldane, the biologist, and George Thomson were some of the most prominent persons who hailed his work. In fact, Prof Haldane even went to the extent of declaring that his work 'Crisis in Physics' was a quarry of ideas for generations to come. It was in a way a firm rebuttal of the position taken by Bernal and Cornforth. This division was reflected even more clearly later on.

The opponents of Caudwell became the firm supporters of the CPSU and the revisionist line it upheld. They, no doubt, opposed the proletarian line upheld by the CPC and Mao. So for all practical purposes, Caudwell divided the British communist party into the proletarian and the bourgeois camp. In fact, the other book 'Marxism and Contemporary Science' by Jack Lindsay is more an attempt to discredit the positions taken by Caudwell. It was not at all a class analysis of the various sciences of the bourgeois society.

However, this problem arose in a way at a later stage inside the Soviet Union. It arose during the Second World War when the Nazis captured a large area of the wheat lands of Ukraine. Wheat production naturally became a pressing domestic problem. Now there arose the need to produce wheat in the colder regions. The official genetics, later called the Mendel-Morgan-Weismannist gene theory by the critics, that was upheld by scientists like Vavilov and Nikolai P Dubinin, could not provide any easy solution for this problem of growing wheat in the colder region. It was not within the range of their genetics. It is in such a context that a plant breeder came out with the suggestion of *photopenodism*, which solved the pressing problem. The Soviet Union could grow the much needed food grain in the colder climate. This was concerned with the problem of the body without changing its heredity. This is a change in the somatic body and not in the germ plasm. The Mendelians claim that the germ plasm or the so-called hereditary material (genes) is not directly changed by the environmental changes in any predictable way. However, Lysenko and several others called the Mendelian theory reactionary and hence a bourgeois science, and claimed theirs to be a progressive and proletarian one. They also supported the idea of Lamarck, who had proposed the idea of the inheritance of characteristics by direct adaptation. Whether the Lamarckian idea is a progressive one or not is also an important issue. In fact, Prof C D Darlington, one of the leading biologists of Britain, was a supporter of the Lamarckian theory, and because of it he was also a supporter of racist theory and fascist positions and also a supporter of imperialism. His book, *The Facts of Life* will be most welcome to a fascist. [Not] that only Mendelism is reactionary and the Lamarckian theory is a progressive one. Both can be used by reactionaries to justify their racial theories. The real issue is that of the problem of elitist versus proletarian science.

Though the criticism of the gene theory was along the correct lines, it did not develop fully and thoroughly into social criticism, that is, a criticism from the standpoint of people's science. In fact, the Soviet theoretician, I I Prezent, did not even envisage such a kind of proletarian science. This was and is the most fundamental weakness of the majority of Marxists to this date.

When this issue came up for a serious debate the Communist Party of the Soviet Union stepped in and declared that Lysenkoism was the accepted theory and the Mendelian theory was declared unscientific. Such an approach towards a very important issue did not help the working class in understanding the bourgeois class sciences nor its need for a proletarian science suited to its needs of building socialism. Rather, the dominance of the elitist kind of knowledge will destroy the real power of the working class, which is the precondition for building an egalitarian society. Socialism can never be possible with the dominance of the expert-producing educational system. The 'triumph' of Lysenkoism was not in any way a triumph of people's science. On the contrary, it was its defeat. That was the only reason why very soon after the exit of Stalin Lysenkoism went out of favour with the revisionists and today the elitist Gene theory is on the throne.

The real issue is concerned with two kinds of knowledge and their social consequences. The two kinds of sciences will engender two kinds of societies. That is why [it is better] to admit that modern science can never be an amorphous kind of knowledge. It is comparable to a crystallite with a specific

structure, which will produce a similar structure in the medium. Modern science, its technologies and machines will invariably produce only a pyramidal, stratified society governed by a soulless authoritarian bureaucracy irrespective of which class is ruling. In fact, this combination will work against the rule of the working class. That is the reason why in the so-called socialist world the power of the working class was very soon lost. Mao's attempt to stem the tide came very late. His launching of the Cultural Revolution could not restore the rule of the working class which was really established by the people's war. The dominance of the elitist knowledge can never help in the evolution of an egalitarian society.

It is the recognition of this truth that had prompted Deng Xiao-ping, the arch Chinese revisionist and the capitalist-roader, to push with vengeance his reactionary programme of modernization at all costs. He knew very well as to what will consolidate the rule of the working people and what will consolidate the power of the capitalist class... What is good for Deng & Co can never be good for the working people. Deng's certificate to modern science and high technology should be enough warning to every class conscious worker regarding their true nature. Conversely, the nature of the science too will be very much determined by the basic structure of the society in which it develops. It will also be so designed as to protect that social structure. This was obvious so far as the state was concerned. Hence Marx and Lenin demand the destruction of that state and creation in its place of a very different one, which will be the very opposite of that. This mistake of the Marxists regarding the evaluation of the modern science and its technologies has been the reason behind such ideas like Islamic, Christian and Hindu sciences. The Marxists can never seriously criticize the absolutist concept of all these including that of Ethno-science. However, the single merit of all these notions is that all of them have questioned the amorphous nature of modern science and its technologies.

From this it follows that there will be two kinds of educational methods as well as two kinds of syllabi. No wonder Mao took every effort to try and destroy the bourgeois class style of education and its class content as well as the method of academic education, which will invariably produce the anti-Red experts before whom the entire society made up of peasants and workers should bow and submit. In short, they will always be at the receiving end like beggars which will be most pleasing to imperialism. All those who advocate such an educational system are willy-nilly objectively agents of imperialism. It is only from such a standpoint that [one] should evaluate every educational system. So the primary or even the most essential aim and hence the function of education in every class divided society ruled by the propertied class, be it feudal or capitalist, is not so much to impart useful knowledge but to divide the society and make such a division appear most natural and hence an acceptable one, particularly to the enslaved section so that it will not develop the mind and the will to revolt or even question the domination of the elite minority. Hence a class divided society produces its own seeds which will germinate only into a similar class divided society. So modern science, its technologies, and its expert-producing educational system are all the specific seeds of this class divided society. [One] cannot use any of them as such to produce an egalitarian society. However abstract and universal or objective this science may appear, because it is born from the womb of a

particular class society, it has to bear the stamp of that society. It carries the genes or the templates of that society.

### **ECCENTRIC IDEAS**

The second phase of the second half of the 20th century witnessed a number of movements, which are no doubt emerging from the lands which are really the lands of global exploiters. Groups that have started these movements may have been primarily motivated by their own people's security. Yet they are compelled gradually to see the bigger truth, unpalatable as it may be for many. The truth is that their very survival depends more than in one way on the survival of the peoples who are enslaved, exploited, devastated, and decimated by their own rulers. However, such groups are not prepared as yet to start a real struggle against their own rulers, who are the real cause of this great damage. They are not yet prepared to see that their real enemy is their own ruling people, and more so their lifestyle. Their lifestyle is based essentially on the inordinate multiplication of abominable and unnecessary needs. If mankind has any chance of survival it is possible only if it consciously, deliberately and willingly takes such resolute steps as to reduce its needs and hence demands from nature. The small minority that goes on babbling about population control, which only means the reduction of Asians and Africans, seldom talks about the reduction of its own abominable needs.

The term European culture is called by many as the bourgeois culture. This term is no more useful to understand its true nature. It is essentially a machine-culture.

In a machine, an artefact, the human (social) contribution is the maximum. But it is not merely that. Nature actually reduces its efficiency, finally incapacitating and destroying it. Hence the most natural attitude of the people who have become machine-dependent is to look at nature as hostile; that is also the message of Darwinism. This outlook was not seriously questioned by Marx too, though at some point he did talk of nature as the inorganic body of man, with which he had to be in continuous intercourse to survive. However, there is no indication anywhere in his vast writings of the most essential and fundamental relationship between man and nature. Finally, this finds its expression in the idea of the accidental origin of life. If life had arisen by an accident or as an event of improbability, it would never have survived at all. Life should have emerged in a context where its survival was very much assured. So its origin was not accidental. It is only when his own lopsided over-industrialization as well as his life-destroying activities are creating various kinds of uncontrollable pollution and destroying the very life-base, a section in the West has become a bit serious about ecology, and it is now raised to the level of a philosophy.

They are also realizing the fact that they cannot insulate and save themselves with the aid of this modern science and its technology. It is also absolutely uneconomical; however, it is easier and highly economical to take up the other alternative, namely, the protection of the life-base on this earth. However, they are moving in this direction very hesitatingly. They will move deliberately and boldly in the proper direction only when they develop deep sympathy and love for the poorer sections of mankind. This is the crucial question. Unless and until they are moved by such a compassion and love they will not be able to take the

necessary bold step of struggling against their own rulers. Their hesitancy is the reflection of their reluctance to lose their privileged position. There is still lurking in them the feeling of a superior race. They think that there is nothing to learn from the so-called lesser mortals. This lack of humility is still preventing them from marching ahead towards the realm of freedom and genuine happiness. They should know the old Taoist saying that "the heaven makes those compassionate whom it wants to protect."

The philosophy of capitalism at its best can only say "Let my own people be happy" (*Mamajanah sukhino bhavanthu*). This is the limit of the notion of the 'Chosen people'. However, Marx wanted this to be the happiness and freedom of mankind. Such a position is expressed in the aphorism : *Sarvejanah sukhino bhavanthu*. However, in the opinion of Marx, it has to be built on the ever-expanding enslavement of the non-human reality. That is the basic reason why his man-centred humanism (anthropo-centric) too is finally self-defeating. So Marx's words also have not shown the way to build a genuine ecology, or a society based on sound ecological principles. However, it is fully expressed in the *Bhakti* or *Prema Marga* of the *Alwars* and *Nayanmars* (the *Vaishna-vite* and *Shaivite* saints). In the nineteenth century this was clearly expressed by the saint Vallalar (Ramalingam).

This is the implied meaning of the *Upanishadic* statement "*Athma-vat Sarva bhutheshu yah pasyathi sa pasyathi*." [One who sees one's own self in every being alone sees the truth]. Strangely, science shows the opposite, namely, the difference but not the identity. The essence is totally hidden. Modern science only shows the non-self (or anti-self) in all the others, which has led to the present crisis. Deep ecology is now the path for the Western man to grasp the essential truth of the identity of the opposites. Till yesterday he never showed the proper attitude and the necessary basic relationship, namely, love and compassion towards the non-human reality. This has led to the crisis in the Marxist movement too. The implied philosophy of the tropical agricultural culture is enshrined in the notion of *Saranagathi*, which is sweet surrender or the loving relationship between the mighty [call it god or nature] and the puny man. The peasant invites nature to help him and make him happy because nature's contribution is the maximum and the most determining one. He naturally develops humility with a reverential and affectionate relationship towards nature. Nature is viewed, no wonder, as a suckling mother. However, he is never a servile being, but really a confident one. His confidence is based on the protective relationship with nature (god) or community. Marx never had any idea of this oriental peasant, whereas Mao had. Therein lies the basic difference between Marx and Mao. This is seldom appreciated by the majority of the Marxists themselves.

Ecological consciousness naturally leads to a radically distinct lifestyle wherein it demands one contribute to the nurturing of nature. Such a lifestyle cannot hate manual work. Machines will be used in very selective spheres only. The economy will be a recycling one, never a throw away ballpoint one. Life will not appear fast, but life will be more artistic. Until and unless this basic defect in Marxist epistemology is corrected socialist ecology cannot emerge. □□□

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