

Evolutionism, Environmental Philosophy and Modern China

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Abstract:

As a theory of biological adaptation, evolutionism is the scientific foundation of environmental philosophy in essence. In intellectual history, environmental philosophy had covaried with evolutionism. Modern Chinese once had to learn from Spencerian evolutionism and Darwinian evolutionism to save China from subjugation, as Confucians like Yan Fu accepted the former and Marxists like Mao Zedong accepted the latter. As a result, there were two possible ways to develop environmental philosophy in China, such as the *laissez-faire* doctrine and commandism. Since the post-Deng years, this difference has been reflected in the tension between environmental NGOs and the central government.

Key Words: Evolutionism, Environmental Philosophy, Spencerism, Darwinism, Modern China

1. INTRODUCTION

In the 19th century, evolutionism began to rise and was more and more professional in Europe, particularly in Victorian Britain. As a new biological theory developed from natural history—one of the two basic precursors of modern science, evolutionism’s analysis is qualitative and descriptive, mainly presenting scientific knowledge about the adaptational relationship between organism and its environment. Influenced by modern biology, a paradigm shift was precipitated in natural philosophy, which was another precursor of modern science and had been dominated by mathematical physics since the Copernican Revolution. The result of this shift called Darwinian revolution is that traditional natural philosophy had given birth to the modern environmental philosophy. As physics declared independence from natural philosophy, and biology did the same thing from natural history, modern natural philosophy and natural history had been mostly converged with each other into the environmental philosophy.

During the time when Lamarckism was the main stream of evolutionary theory, the earliest environmental philosophy was usually of romanticism or transcendentalism. Since the naturalistic mechanism of biological evolution still had not been completely understood, there remained mysterious space for biological philosophers to imagine. Only after Darwinian evolutionism and Mendelian genetics being established in sequence and synthesized into the modern Neo-Darwinism, by virtue of the theory of natural selection and the laws of “hard heredity”, environmental philosophy could be professionalized at last, as a ripe branch of philosophy concerning the natural environment and humans' place within it.

In modern China, the image of evolutionism influencing environmental philosophy was even more complex. At the same time, different varieties of evolutionisms were introduced into China, during the end of the Qing Dynasty and the early stage of the Republic of China. Both Spencerism and Darwinism were warmly accepted by Chinese intellectuals, for saving the nation from foreign subjugation and ensuring its survival. On one side, Yan Fu, one of the outstanding Confucian scholars who aspired to learn from western scientists and philosophers, translated some representative works on evolutionism, such as T. H. Huxley’s *Evolution and Ethics* and Spencer’s *The Study of Sociology*. It seemed that *Evolution and Ethics* and the doctrine of “survival of the fittest” had more popularity at that time, but in fact Spencerian “laissez-faire” was Yan Fu and many other Confucians’ favorite. On the other side, Mao Zedong, as the leader of Chinese Marxists, inherited Darwinism from Marx and Engels’ works on the dialectic materialism and historical materialism. Holding the banner of science and development, Chinese Communist Party (CCP) has been leading Chinese people since 1949, meanwhile the environmental philosophy from the perspective of a “Marxist Darwinian” progressionism became the mainstream culture. However, there still exists a hidden Spencerism in Chinese environmentalism, which can be seen once in a while from the environmental enthusiasts’ ideas in the non-governmental organizations (NGOs).

2. EVOLUTIONISM AND ENVIRONMENTAL PHILOSOPHY: THE GREEN DIMENSIONS SCIENTIFIC AND PHILOSOPHICAL

Although evolutionary biology had once been called a science “red in tooth and claw”,¹ it is essentially a “green science”. Evolutionary biologists study the adaptational relationship between organisms and their living environments and try to discover the natural laws of keeping balance between them. For the same reason, it may be said that environmental philosophy is a “green philosophy”, in which what philosophers concern are the problems on adaptation, existence and development. Seen from both the structure and function of them, in the history of science and philosophy, the two “green dimensions” are not mutually exclusive events, but developing jointly.

In 1809, the first genuine organic evolutionism was claimed in the *Philosophie zoologique*, written by Jean Baptiste Chevalier De Lamarck, a French naturalist. In his book, Lamarck created a new model of organic change, concerning both the natural progress of development and the circumstances of constraining the modification. It’s the first time to realize that the diversity of the organism’s forms could have been caused by two mutual factors—two “separate processes”:

The state in which we now see all the animals is on the one hand the product of the increasing composition of organization, which tends to form a regular gradation, and on the other hand that of the influences of a multitude of very different circumstances that continually tend to destroy the regularity in the gradation of the increasing composition of organization.²

Evolving through these two processes, organisms have been driven from simple forms to complex forms by a complexifying force, and specialized for their environment by an adaptive force. The key evolutionary mechanism in Lamarckism is the “use and disuse” organism development with the “inheritance of the acquired characteristics” or the so-called “soft heredity”. In this way, it is “to strive for progress” rather than to “struggle for existence”, that is the true meaning of living for organisms. By means of this evolutionism that Lamarck had had teleology in reserve, not quitted in evolutionary biology and natural history. Anyway, thanks to Lamarck’s biological adaptationism, the history of a scientific environmentalism began.

The disciplinary “environmental philosophy” was not entirely independent from natural philosophy until the rise of the environmental movement in 1970s, but the “philosophy of environment” had indeed become more positivistic after Lamarck laid the foundation for it. At least, the term “environment” would have made more “physis” sense as “nature” had made more “metaphysics” sense. Furthermore, it would have been more thinkable from then on that

¹ Michael Ruse, *The Darwinian Revolution: Science Red in Tooth and Claw* (Chicago: University of Chicago Press, 1996).

² Richard Wellington Burkhardt, *The Spirit of System: Lamarck and Evolutionary Biology : Now With “Lamarck in 1995”* (Cambridge, Mass.: Harvard University Press, 1995), 145.

the harmony between organism and nature should be not simple but complex, or not static perfect but dynamic balanced. The most of all, man's place in nature could be no longer taken for granted being provided by the world of ideas (from Platonic idealism), the first mover (from Aristotelean natural philosophy), the God (from Christianity), or something supernatural, but evolved by the world's universal trend of progress in a naturalistic way. Therefore, we can see that in the early history of ecology in the later half of 19th century, naturalists such as Emerson and Thoreau began to turn their attention to the "nature looking into nature"³, though from the idealistic worldview of Romantic natural philosophy:

As a naturalist Thoreau labored, as had White before him, to bring together all the natural phenomena of his home environs into a single, interrelated whole, arranged by nature in perpetual balance."⁴

Nonetheless, while the laws of heredity were mysterious as before, quasi-scientific ideas such as Robert Chambers' "principle of progressive development" and Lamarckian "inheritance of the acquired characteristics" still played a large part in their pondering over the wildness, resulting in two philosophical and ethical beliefs: 1. evolution is naturally directed towards a happy end by some internal power (like Lamarck's "complexifying force"); 2. adaptation rather than destruction is the mainstream in the process of evolution and nature can teach us how to be happy as long as we are free to let nature take its course. In other words: natural is ethical. In the Victorian Age, Herbert Spencer was the most notable philosopher who believed in these doctrines.

During the early 20th century, Mendelian genetics rose and saved the Darwinian theory of natural selection that had almost been forgotten. The law of segregation and the law of independent assortment made biologists know that the mutation of an organism's characteristics just happens randomly on the parental scales and that different traits are inherited independently of each other, which meant that not "use and disuse" but "trial and error" is the substance of evolution. More clearly, in this picture of nature, evolution might be random and man might lose his privilege as the end of evolution.

As Darwinism and Mendelism were synthesized into modern evolutionary theories, the so-called Darwinian revolution was complete then.⁵ Nearly in the meanwhile, philosophers such as John Dewey began to understand what the meaning of natural selection would be to evolution and the struggle for existence philosophically. In his "empirical naturalism", Darwinism was applied to developing a "genetic method", by which a man in nature could learn how to solve problems of adaptation from experimentation and "trial and error". Then

³ Donald Worster, *Nature's Economy: A History of Ecological ideas* (Cambridge: Cambridge University Press, 1977), 78.

⁴ *Ibid.*, 66.

⁵ Peter J. Bowler, *The Non-Darwinian Revolution: Reinterpreting a Historical Myth* (Baltimore and London: The Johns Hopkins University Press, 1988), 129.

came Aldo Leopold and Holmes Rolston III, with the land ethics and the environmental ethics in which the evolutionary ethics based on Darwinism was extended from man to ecological system, and “the Darwinian model is used to define the main thematic concepts”.⁶ Although environmental ethicists like Leopold and Rolston also encourage us, just like Spencerians, to respect and learn from nature, they do ask people to “do something” rather than merely “let it be” (*laissez-faire*). After all, they need governments to play a crucial role in the protection and preservation of environment.

3. EVOLUTIONISM IN CHINA: (CONFUCIAN) SPENCERISM OR (MARXIST) DARWINISM

Like natural science itself, evolutionism was also alien to Chinese when it was introduced to China. During the crucial years after the Chinese was defeated in the Sino-Japanese War (1894-1895), intellectuals witnessed the collapse of the traditional cultural and political order, knowing that both Spencerism and Darwinism were hopeful to turn the situation around. The first celebrated scholar to translate evolutionism was Yan Fu. In 1898 and 1903, he translated and published Thomas Huxley’s *Romances* lecture “Evolution and Ethics” and “Prolegomena” and Herbert Spencer’s *The Study of Sociology*, which were probably the best works of sociological evolutionism he could find at that time. Regardless of Huxley (as Darwin’s bulldog) and Spencer were opposed to each other in these two masterpieces on evolutionary ethics, in effect Yan Fu had introduced both Darwinism and Spencerism meanwhile.

In *Evolution and Ethics*, Huxley suggested a kind of Darwinian evolutionary ethics. His point in this book is that the mental characteristics of man are produced by evolution (as the physical aspects) and cannot be naturally inherited from parents but can be “naturally” determined by our social culture. Since morality is sometimes at war with our natural instincts, we cannot derive ethics from the struggle for existence a priori, but we do have the responsibility to make ethical choices a posteriori.⁷ In contrast, in Spencer’s *The Study of Sociology*, ethics is as much the product of Lamarckian evolution as society, psychological elements, organism and the whole material universe. The first principle of Spencer is that the evolution is naturally determined and progressional, tending to form a regular gradation by “the increasing composition of organization”, “inheritance of the acquired (mental) characteristics”, and “survival of the fittest”, as:

Evolution is definable as a change from an incoherent homogeneity to a coherent heterogeneity, accompanying the dissipation of motion and integration of matter.⁸

⁶ Hicham-Stéphane Afeissa, “Darwinian Storied Residence. An introduction to the Work of Holmes Rolston III”, *S.A.P.I.E.N.S.*, Vol.1, No. 2 (Nov., 2008), 1.

⁷ Thomas H. Huxley, *Evolution and Ethics and Other Essays* (London: Macmillan and Co., Limited, 1911), 79-86.

⁸ Herbert Spencer, *First Principles* (New York: D. Appleton and Company, 1897), 371.

It may be probably safe to say that Huxley v.s. Spencer is Darwin v.s. Lamarck, for the divergent point is that whether morality can be inherited as an acquired characteristic or not. Huxley said “no” to summon people to artificially control natural selection for social progression, but Spencer said “yes” to proclaim that *laissez-faire*, i.e. “every man is free to do that which he will, provided he infringes not the equal freedom of any other man”,⁹ is the best way to improve the developmental level of a society. Reasonably, traditional Chinese Confucians greatly agreed with Spencer, because Spencerism seemed more compatible with the old Chinese theory that man is an integral part of nature. In fact, Yan Fu had argued that sociality should conform to the law of “the survival of the fittest”, and the human fitness should be determined by “vigor, intelligence, and virtue”, the only problem was that Chinese people were too inferior to govern themselves yet. The realistic way to remove the basic causes of their inferiority was gradualistic national education instead of social revolution, “as in all improvements, he maintained, political restraints could be lifted only gradually in relation to the people’s greater mastery of their surroundings.”¹⁰

On the contrary, Chinese Marxists had made another choice: revolution, which was supported by a progressionalistic interpretation of Darwinism. Marx and Engels acclaimed “the theory of evolution named after Darwin” as one of the three great discoveries (the other two: cell theory and energy conservation and transformation law) in natural science in the 19th century:

... Darwin first developed in connected form that the stock of organic products of nature environing us today, including man, is the result of a long process of evolution from a few originally unicellular germs, and that these again have arisen from protoplasm or albumen, which came into existence by chemical means.¹¹

For Marxists, Darwinism seemed both “dialectic” and “materialistic”. What’s more, both Marx and Engels approached the proposition that “is destined to do for history what Darwin’s theory has done for biology”.¹² The history of class struggles is the very core of Marxist evolutionism, and Darwinism is only the scientific “proof” of it. The point is that only man, or advanced communists can and should struggle for a Utopian end of evolution, because they are “the fittest”:

That the history of these class struggles forms a series of evolutions in which, nowadays, a stage has been reached where the exploited and oppressed class—the proletariat—cannot attain its emancipation from the sway of the exploiting and ruling

⁹ Herbert Spencer, *The Principles of Ethics*, Vol. II (New York: D. Appleton and Company, 1896), 46.

¹⁰ Y. C. Wang, “The Influence of Yen Fu and Liang Ch’i-ch’ao on the San Min Chu I”, *Pacific Historical Review*, Vol. 34, No. 2 (May, 1965), 164.

¹¹ Frederick Engels, *Karl Marx and Frederick Engels: Selected Works in One Volume* (International Publishers, 1968), 621.

¹² Karl Marx, Frederick Engels, *The Communist Manifesto: Complete With Seven Rarely Published Prefaces* (Filiquarian Publishing, LLC., 2005), 71.

class—the bourgeoisie—without, at the same time, and once and for all, emancipating society at large from all exploitation, oppression, class distinction, and class struggles.¹³

In modern China, Marxism was localized and developed to bring about the social revolution led by Mao Zedong. Evolving from a traditional Chinese intellectual to a revolutionary, Mao's early thought models were progressive Confucians like Kang Youwei and Liang Qichao, who advocated political reform but ardently supported the monarchy based on a Spencerian evolutionism from *The Study of Sociology* or somewhere. Then, after the Revolution of 1911, Mao was influenced by Chen Duxiu, Li Dazhao and Hu Shi from the magazine *New Youth*, and finally acquired socialism.¹⁴ At first, Chen's revolutionary thinking derived its origin from Yan Fu's translation of *Evolution and Ethics*, then he turned to Marxism when he was one of the founders and was selected the first general secretary of the central committee of CCP. Li was also a Marxist and one of the early leaders of CCP, but his communist anarchism was rooted in Kropotkin's evolutionary ethics. Not only were Huxley and Kropotkin both more Darwinian than Spencerian on sociology and ethics, but also Dewey was the earliest Darwinian or "anti-Spencerian" philosopher in the history of modern western philosophy. In terms of Dewey's pragmatism, Hu found another way for Chinese people to reform the nation: liberalism. All in all, as Mao rose and Maoism became the "significant of Marxism", Darwinism rose accordingly and Spencerism fell, at least in the official idealistic doctrines of evolutionism.

4. ENVIRONMENTAL PHILOSOPHY IN CHINA: LAISSEZ-FAIRE OR COMMANDISM

Now it comes to the environmental philosophy in China. Before modernization, the world picture in Chinese traditional culture was something of organism, within which man and nature were spontaneously united harmoniously, as:

The movement of heaven is full of power. Thus the superior man makes himself strong and untiring. The earth's condition is receptive devotion. Thus the superior man who has breadth of character carries the outer world.¹⁵

The agreeable environment would have been everywhere and nowhere only if one had believed that he was following the mandate of nature, i.e. "heaven" and "earth". In this theory, nature is so vital that there seems no need for man to protect or conserve it intentionally. But observed from China's environmental history, the reality was that the Yellow River plains, originally the political and cultural center, had been suffering the ecological degradation by over exploitation.

¹³ Ibid.

¹⁴ Robert A. Scalapino, "The Evolution of a Young Revolutionary—Mao Zedong in 1919-1921", *The Journal of Asian Studies*, Vol. 42, No. 1 (Nov., 1982), 30-31.

¹⁵ Chung-Ying Cheng, On-cho Ng, Ed., *Philosophy of the Yi: Unity and Dialectics* (John Wiley & Sons, 2009), 140.

However, it would be not realistic to develop an official environmental philosophy until the Anti-Japanese and Civil War was over. Ruled exclusively by CCP since then, Chinese got the chance to practice Mao's sinified Marxism to guide social engineerings. As the scientific biological basis of Marxian progressionism, "Darwinism" is popular in China, though the most of general public understand little about "natural selection" and "evolution" may be always mixed with "progression" or "development" in their minds. For this reason, there is still an open door for Lamarckian elements in social Darwinism or ethical Darwinism of China, which does mean that Huxley's evolutionary ethics and Spencer's sociology will be still able to coexist after 1949. On the one hand, the former encourages that man's will, not instinct, is decisive. On the other hand, the latter, with some Lamarckian background, proposes to let nature take its course. The tension between them had been delicate and changeable from Mao's age to Deng's age.

Mao's rule was characterized by "the political economy of command, charismatic leadership, continuous revolution and the supremacy of politics over economics",¹⁶ with the environmental belief of man dominating nature. According to Mao's logic, now that Marxism had revealed the secret of historical development, communists could have sped up the natural progression of productivity towards a more beneficial status. There were also good reasons to believe that the virgin nature certainly could and should be changed artificially into the livable environment, through governmental development plans and on the scientific understanding of nature. Unfortunately, during the Great Leap Forward (1957-1961) and the Great Proletarian Cultural Revolution (1966-1976), China's natural environment was actually not treated friendly, but destroyed a lot. Government mobilized masses to transform mountain lands to terrace fields blindly and encouraged every household to establish small backyard steel furnaces with burning lots of woods, in pursuit of a fast improvement of the national strength but only unexpectedly leading:

... attacks on the natural environment as scarce water was polluted or wasted, wildlife (even sparrows) killed and forests cut down. The latter process led to loss of soil protection and enrichment, changes in local micro-climates, the disruption of upland watersheds and their attendant ecosystems and increases in the severity of floods and drought.¹⁷

Learning from those lessons and being influenced by the western ecological trend, in Beijing in 1973 the government convened the first National Environment Conference, at which new guidelines were drawn up on environmental protection. But the concerns about natural environment and environmental protection were not flourishing until Deng Xiaoping sufficiently became the new leader of CCP, at the Third Plenary Session of the 11th CCP

¹⁶ Richard Sanders, "The Political Economy of Chinese Environmental Protection: Lessons of the Mao and Deng Years", *Third World Quarterly*, Vol. 20, No. 6 (Dec., 1999), 1201.

¹⁷ *Ibid.*, 1203.

Central Committee in 1978. Deng was as well a pragmatic reformer as a Marxist. And with Deng's leading, the more market-based political economy grew and flowered in China. Deng shifted state investment from heavy industry into light industry and agriculture, and encouraged farmers to plant crops suitable for their local natural conditions. Owing to his policy, many ineffective restrictions under the commune's commands were broken up and the Household Responsibility System was introduced. Relatively based on price rather than planning, the privatized family farming was reintroduced, and the individual responsibility for protecting environment was officially reaffirmed. In the theoretical system of "socialist market economy", Deng's most famous quotation - "It doesn't matter whether it's a white cat or a black one. I think, a cat that catches mice is a good cat", which means practice is the sole criterion for testing truth, was also the truth in the new period environmental philosophy.

Different from Mao's hard Darwinian commandism, Deng's black cat-white cat theory had created more spaces for the laissez-faire policy based on Spencerian evolutionism. To the extent that ecological laws might have been too complicated (even for the superior scientific socialists or the communists) to be tamed, centralized management must give way to the local practices and private experiences. That is to say, only the residents or the inhabitants are best qualified to speak on local environmental matters, such as how to use it or how to avoid abusing it. As Spencer taught us in *The Study of Sociology*:

do this, and do the like with all other established institutions, agencies, products, and there will come naturally the conviction that now, too, there are various germs of things which will in the future develop in ways no one imagines, and take shares in profound transformations of society and of its members: transformations that are hopeless as immediate results, but certain as ultimate results.¹⁸

Since 1978, facts have proved that a relatively moderate liberalism is and will be playing an active role in the society development and resource use. As the program of "reform and opening up" processes, regulations through the market have seemed more effective and acceptable. General public are increasingly expressing their own concerns over China's environmental issues, meanwhile, the environmental non-governmental organizations—the NGOs have appeared and come into play since 1994. It was estimated that by the year 2000, China had approximately 2,000 registered environmental NGOs, the most famous ones among which include Friends of Nature (FN), Chongqing Green Volunteers (CGV) and Global Village Beijing (GVB).¹⁹ These NGOs are dedicated themselves to building the awareness of public about environment, organizing volunteers planting, and conveying their ideas to government decision makers. Compared with the success in activities, their environmental philosophy was relatively a little obscure. Now it might be the time to let them know more about Spencerism which could have been conveniently helpful to them, though it had been misread and almost

¹⁸ Herbert Spencer, *The Study of Sociology* (New York: D. Appleton and Company, 1899), 112.

¹⁹ Jonathan Schwartz, "Environmental NGOs in China: Roles and Limits", *Pacific Affairs*, Vol. 77, No. 1 (Spring, 2004), 39-40.

forgotten since the Darwinism-based Marxism became the guiding ideology in China. As far as the community of scholars is concerned, the most influential environmental philosophers such as Qu Geping and Yu Mouchang are almost officers or professors rather than freelancers. There are still many other lessons to learn for the thinkers of NGOs. In addition, the most of Chinese NGOs would have been described as GONGOs—governmental non-governmental organizations, for in fact they were set up by the government agencies or institutions, with two quantitative measures to be distinguished from genuine NGOs:

one, the percentage of funding received from government; and two, the number of government officials serving among the NGO staff or boards of directors.²⁰

Obviously, their ability is limited, but China's NGOs still have a duty to defend the rights of local inhabitants or independent observers against the centralized government's possible arbitrary rules. Their theoretical rationality is supported by the hidden environmental philosophy that every individual organism knows their natural niche best and should be given the right of full autonomy in their own areas. Again, this environmental philosophy can be supported by more Spencerian evolutionism than Darwinian evolutionism.

5. CONCLUSION

History can tell us how evolutionism itself had evolved, from a philosophical ideology to a scientific theory on which another new philosophical ideology was built. Environmental philosophy, as the new natural philosophy based on the modern biology and ecology, would have been improved in different directions if it had selected different evolutionary theories. Accordingly, the tension between the NGOs and the government on the environmental policy, development and enforcement of China may not be relieved for a long time, unless Spencerism and Darwinism have been more naturally combined with each other in Chinese Marxism. As political ecologists pointed that

a sense of community is needed because in the environmental era social and environmental responsibilities should play a much more important role than self-interested profit-making motivation,

and that:

the politics of the common, however, that at the same time does not arbitrarily restrict liberties, can be found in the other, perhaps so far more neglected, tradition of liberalism accompanied by a strong welfare state.²¹

²⁰ Ibid., 36.

²¹ Avner de-Shalit, "Is liberalism Environment-Friendly?", in *Environmental Philosophy: from Animal Rights to Radical Ecology*, Ed. Michael E. Zimmerman, J. Baird Callicott, George Sessions, Karen J. Warren and John Clark (New Jersey: Upper Saddle River, 2001), 419.

Now that China has been rising in the world, both economically and politically, we have good reasons to believe that the equilibrium point will be found soon in the future.

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