

THE DEBATE ABOUT ‘REVERENCE FOR NATURE’ IN 2005 AND ITS MEANINGS FOR PUBLIC UNDERSTANDING OF SCIENCE IN CHINA

Bing LIU
Tsinghua University, China

Abstract

To enhance the public's environmental consciousness is a very important part of the work of public understanding of science. In recent years in China, there have been some visible progresses made in this respect. In the year of 2005, there is an influential debate about “”, which has caught numerous public's attention in Chinese society. However, in this debate, we can also find some problems worth studying in perspective of public understanding of science. The meanings of this debate for public have been analyzed in the paper.

Keywords: Reverence for nature, Public understanding of science

1. Introduction

Science and human knowledge communication concerning ecological and environmental issues is a significant part in terms of the contents of public understanding of science. Some general studies about science communication also attached certain importance to such issues about ecology, environment and social development as sustainable development, etc, and have also found some existent problems. For example, Tammy L. Lewis, an American scholar, once studied the reports on sustainable development in American newspapers from 1987 to 1997, and reached the conclusion that ‘Sustainable development is presented almost exclusively within an economic growth paradigm that assumes that economic growth, technology, and northern expertise are the most effective way to achieve development.’[1]

China, as a developing country, is facing the rapid development of economy and industry as well as the accelerating deterioration of its ecological surroundings. Though an old country with long cultural traditions, China today stands in the background of relevant international studies in terms of the awareness of ecological environment. Therefore in 2005, the debate about ‘reverence for nature’ caught great attention from all media, and evolved into a public debate from its original academic nature. From this case, we can get a glimpse of the problems on the domestic understanding of the relationship between human beings and nature. And these problems are worth mentioning for the understanding and practice of public understanding of science.

2. A brief introduction to the debate about ‘reverence for nature’

On the Dec 26th, 2004, a sudden disaster befell on the regions around the Indian Oceans. The Indian Ocean tsunami claimed nearly 200,000 lives for an instant, and it thus became the focus of the whole world. While feeling great sorrow in the aftereffect of the tsunami, people also reflected on the relationship between human beings and nature. Shortly after the tsunami, Mr. He Zuoxiu, a theoretical physics scientist and academician of CAS, talked about the lessons for humans tsunami provided from the perspective of the relationship between man and nature with the topic of ‘man need not show reverence for the nature’ as he was interviewed by the Journal Global. He pointed that we humans need to see the harmonious as well as the non-harmonious sides between man and the world, and if we failed to share a clear mind about this, we would be off guard and get disastrous outcome.[2] Mr. He said that ‘people first’ should be the guidance for dealing with the relationship between man and nature, and for the sake of human beings ‘we sometimes have to ‘destroy’ the environment and ecology and transform them as well.’ Meanwhile he also severely criticizes what he considered as ‘the viewpoint of attempt and accomplish nothing in the relationship between man and nature’-- man need to show reverence to nature, and he stated this was ‘actually scolding the scientism ... had been led astray to anti-science’.

Just after the publication of Mr. He's statement, strong opposition came instantly from the people with different viewpoints. On Jan 11th, 2005, a civilian environmentalist and also Beijing ‘Green Earth Volunteers’, Ms. Wang Yongchen made the initial response by issuing an article in Xin Jing Bao (The Beijing News) named The reverence for nature is by no means anti-science.[3] She expressed her resolution to ‘sing a different tune with the standpoint (i.e. Mr. He's viewpoint of ‘people first’)’. She said that we could not adopt the principle of ‘people first’ in considering the relationship between man and nature. Since the nature did not exist just for man and there were many other species in the nature family which also deserved equal rights, man must revere nature in this sense.

The two articles respectively by Mr. He and Ms. Wang led a heated discussion about the relationship between man and nature. Two days after the publication of Ms. Wang's article, namely Jan.13th, 2005, a supporter of Mr. He, Mr. Fang Zhouzi who is in charge of New Threads Web-station also issued an article in contrary to Wang's in Xin Jing Bao named Showing reverence for nature is anti-science.[4] He pointed in the article that 'the so-called reverence for nature means literally fearing and worshipping nature, and the key point is fear, i.e. being afraid... ; this is an irrational and ignorant concept, and it is totally against the scientific thoughts... ; to oppose the scientific ways to know nature and to oppose the scientific principles to utilize and transform nature are against science without doubt... ; and the reverence for nature like that is more against the human beings than the science.

Confronted with such drastic comments, Wang issued an article again named Reverence for nature is not against the man in Xin Jing Bao on Jan. 14th, 2005 to refute Fang's viewpoints and restate hers. While at the same time, new strength joined in the side against the reverence for nature. Mr. Ke Nan proclaimed in his paper titled Reverence for nature is to encourage the human inaction that mankind should not revere nature and that viewpoint of showing reverence for nature was to call for man's inaction about nature. At the same time, more people began to support Wang's ideas with their articles. Among them, Yang Bin said 'Showing no reverence for nature is absurdity'; Zheng Qian said 'To push science to altar is also anti-science'; Yao Zhongqiu said 'The middle road is the proper attitude to nature'; etc. They all refuted the ideas of He Zuoxiu and Fang Zhouzi from their respective perspective. And one refutation article by a middle school student Xin'er stood out and caught special attention. She said that they had been taught by teachers, from primary school to middle school and in the classes of both nature study and biology, that man must revere nature. As for this point, she asked in a childlike tone that 'Why do people quarrel a lot over such a common sense? Is what we have learned wrong? ... Has the pursuit for material entertainment blocked people's eyes to see such common sense? Or does the development of science and technology mislead people ... to believe blindly in science? To refuse to admit science common sense is anti-science, and to have superstition in science is anti-science to a larger extent. We must be aware that scientists are not equal to science and worshipping science is absolutely not science.' [5] Though a feeble voice in the adult argumentation, Xin'er's proposition was of great significance since it at least symbolized the most popular ideas shared by middle school students of new generation in China and the tough concept over the relationship between man and nature conveyed to the students in Chinese educational reform.

So far, the debaters have formed into two sides. One is for the reverence for nature and the other is against that. They stuck to their ideas and would not give up to each other. From 19th to 21st, Fang Zhouzi issued three articles, What the tsunami has taught us, Fear, reverence and worship are all anti-science and Reverence for nature is propagating the inductive thoughts of man and nature respectively in the media of Xin Jing Bao, China Youth and Beijing Science and Technology News. He further criticized the people of reverence and even considered the reverence for nature as superstition. Wang Yongchen also refuted on 21st and 22nd with the articles Is protecting nature just for the human beings and Reverence for nature is just the attitude instead of the means of action to question the anti-reverence people, and stressed that the reverence for nature was the attitude of human beings toward nature. While on the Jan. 22nd, 2005, the second article by He Zuoxiu Man must do something or more things about nature led the whole discussion to the climax.[6] In his article, He 'tipped off' Xin'er's 'childish words' and refuted the viewpoints of Wang Yongchen, Zheng Xi and Yao Zhongqiu by pointing out that the reverence for nature was to 'call on us to give up efforts' and to 'lead us to attempt and accomplish nothing'; and furthermore that man must 'do something or more things' about nature and protect the fundamental interests of human beings in the process.

The heated discussion caught more and more public attention and more people expressed their own understandings. Ms. Liao Xiaoyi from Global Village of Beijing and Mr. Liang Congjie from Friends of Nature also joined in the discussion to support the reverence for nature. Liao said that 'in such a blundering age, it is both courage and happiness to preserve a constant faith and clear value of reverence for nature'.[7] Liang's article pointed directly at He's two titles Nature and man, which comes first? and Against the human reverence for nature. He said that 'It is not bad to show reverence for nature and man should be a bit humble and wary in front of nature rather than be too self-confident even unscrupulous That was not as serious as against nature, and just on the contrary, this is the true rational attitude toward 'science' in my opinion'.[8]

With more and deeper discussion, the scope of the debate extended from the paper media to the network media. Several networks and many netizen stepped into it actively. SINA.com even provided a platform for the direct talk of the two arguing sides. On Jan. 25th, 2005, the initiator and main participator of the debate, the Academician He Zuoxiu was invited to SINA and arranged to have an online discussion; on Jan. 27th, 2005, Liao Xiaoyi and Xin'er were invited to SINA's chat-room, and at the same time the telephone interviews of Wang Yongchen and Zhao Nanyuan were conducted, therefore they had a respondent talk through internet. The propaganda on net expanded the influence of this discussion. Meanwhile, SINA.com even set up a polling booth for the topic 'Should man revere nature?' and carried an informal survey on this subject through ballot. Many people were drawn to this website. By the 18:23 of Jan 27th, 2005, altogether 16,663 people expressed their thoughts on this topic. The result is as follows:

Table 1 The investigation result on the science and technology channel of SINA website 2005-1-27 18:23

	options		number
1	man must revere nature	73.16%	12070
2	man need not revere nature	24.37%	4020
3	turn a middle road attitude	2.15%	355
4	no special ideas	0.33%	54

Material source tech.sina.com.cn/d/2005-01-26/1609515731.shtml

Such net investigation enabled more people to express their viewpoints in a simpler way, so the discussion was further pushed to the public. Later the survey result changed as the time went by and there were larger percentage supporting the second option. With the increasing number of two sides, there was an obvious change, compared with the former stage, that more experts and scholars including university professors joined in both sides.

For some reasons, it seemed that the discussion stopped suddenly, but actually the debate about reverence for nature prolonged in various forms and even today it is still not in rest at all and has become the important background for some other arguing topics. On Dec. 1st, 2005, when searching key words "reverence for nature" by searching engine Baidu.com., we could get 42,100 outcomes; when searching for the key words "reverence for Nature"; we could get 178,000 items. Just on the same day, when searching for the key words "reverence for Nature" on Google, we could get 57,000 outcomes and 225,000 for the key words "reverence for nature". All these indicate that "reverence for nature" has undoubtedly become one of the most heated topics in 2005.

3. The arguing two sides and their bone of contention

Concretely speaking, "reverence side" is mainly composed of some environmentalists in Beijing with some university professors, some civilians and even some middle school students as supporters. As for those participated later, there are some scholars of different subjects and especially some scholars from the circles of philosophy of science and the history of science develop the viewpoints of this side to a certain theoretical height with their profound natural science foundation as well as their philosophical theory accomplishments. Furthermore, one conspicuous feature of this side is that some people, though with the educational background of natural science, are now engaged in the work of humanities and social science. And another group are the civil environmentalists of NGO whose ideas are more characterized with humanism and their general traits are the special feelings for nature and the great fervor for the environmental protection.

The "anti-reverence side" includes some scientists and some older generation workers of science popularization. Among these representative people, most have the science and engineering background and several main characters were once the symbol of "scientism". They have absolute worship for science, strong confidence in the strength of science and the positive attitude toward the human transformation of nature.

In the whole debate, the two sides have their respective ideas and many controversial arguments against each other. Their bone of contention focused literally on the topic "whether man should revere nature"; while two other related topics were extended from the discussion, i.e. whether the reverence for nature means the humans to attempt and accomplish nothing; whether the reverence for nature is anti-science.

"Anti-reverence" people stress their ideas of "people first" in terms of the relationship between man and nature. Man is the centre of the nature, the measure of the whole world, and the master of the nature. Man's dignity will come first forever and all human activities must serve the fundamental rights of mankind, so there is no need to consider other species and no need to revere nature since nature and other species are just man's instruments and their value is embodied only by their serviceability to mankind instead of any intrinsic value or rights. Therefore, it is necessary and even reasonable to rebuild and destroy the ecological conditions for the sake of human development. For the human benefits of mankind, we must do something or more things to the nature. Man must rebuild and conquer nature incessantly through scientific methods and must have faith in our ability of conquering nature and in science.

"Reverence side" believes that man is just part of nature and nature is the nurturer of mankind, so man should be grateful to nature. Other species on the earth do not live just for mankind, and every species has its own value and rights to exist, so man should respect their rights and value. Nature has its own law which is not decided by man's purpose, and man has no other choice but conform to the law since the violation of law will bring about man nature's punishment. Therefore, "reverence for nature shows man's respect for the life origin and for the objective law, and it encourages mutual benefits and co-existence between man and nature by pursuing the advantages and avoiding the harmfulness".^[9] Of course, reverence for nature does not mean to attempt and accomplish nothing in front of nature, and it by no means discourages man to take advantage of nature and rebuild nature. It is simply urging mankind to respect and conform to the natural law in the process of harnessing and rebuilding nature. "Reverence side" also re-states that reverence for nature is the just respect for science, and what it opposes is the unilateral thinking that science and technology can solve all problems, but not the science and technology themselves.

4. Some theoretical analyses

First of all, we must be aware that the two sides in this debate have different understandings of concept of 'reverence for nature.' This involves the specific contexts and different interpretations for the word 'reverence', and we won't talk too much about this here.

Secondly, this debate about reverence for nature is mainly focused on the relationship between man and nature though it covers the problems of scientism and anti-scientism. Analyzing the essence of the topic and the theoretical basis behind the two sides, we will find that this debate is actually the concrete embodiment of the controversy over man-centered or not-man-centered over specific problems at specific periods, i.e. to consider the relationship between man and nature from the perspective of man-centered or not man-centered perspectives. 'Reverence side' stands for the not-man-centered viewpoint, while 'anti-reverence side' is for the man-centered. Thus accordingly, man is facing the problem of how to treat nature from different standpoints.

Furthermore, the two sides also have different understandings of the modern environmental problems from different standpoints.

'Reverence side' on behalf of scientism thinks that modern environmental problems are caused neither by the over-reconstruction of nature by mankind nor by the inability of science and technology, but by the facts that there is limitation for the development of science and technology today, the developing speed can not catch up with the pollution speed, and the developing standard is not high enough to solve the environmental problems, i.e. the underdevelopment of science. But this does not mean that we can not solve the environmental problems or the science technology is incapable. In fact, the notion that if science is developed and technology is improved the environmental pollution is to be solved, embeds a presupposition that the development of science and technology in the future will solve all the environmental problems; however, this is a sheer belief.

'Reverence side' believes that the fundamental cause for the environmental problems lies in the over-exploitation and over-development, and further in the traditional value originated from the industrial civilization--- treating nature as the subject of conquer and the resource of mankind. Therefore, the environmental protection is not just related to science or the task of scientists, but a public matter which calls for individual participation. Science is not versatile, and science itself is not enough to solve the environmental problems. What is required for us is to change the current lifestyle and those obsolete values by starting with its thinking roots of occurrence. In other words, the environmental protection need the enthusiasm from every one besides the emotionless science, and totally new natural and value standpoints based on the not-man-centered concept.

There are several causes for the debate. Firstly, the natural disasters and human calamities these years impel more people to contemplate on the relationship between man and nature. Secondly, this is a reflection of the long-term influence on the science ideology in China. In early period, because of the special history in its development and the invasion by the weapons of western countries in particular, China realized the strength and power of western science and technology. And as the western science and technology were introduced into China, the thoughts of scientism also came into being and even became an essential part in Chinese ideology. For a long period in Chinese education, we have been taught with the absolute truth of science, the universal validity of scientific methods and the optimism of science and technology. 'Science', in Chinese context, has become the equivalence of correctness and validity, which is more obvious in the ideas of 'anti-reverence side'. Thirdly, the debate is a reflection of the different understandings of the viewpoint of development in essence. People have come to realize the conflicts between the economic development of unilateral pursuit of quantity and speed and the environmental protection. However, in the long-term national industry-oriented developing model, in the process of market-oriented economic development and in the global developing trend, people paid much attention to the material development with that of western countries as standard. From this perspective, 'anti-reverence side' is not viewing development on the whole, and what it proposed is just the 'catch up' and non-sustainable development in a long run.

5. Viewing the debate from the perspective of public understanding of science

The debate over whether man should revere nature lasted nearly for a year, and was still going on till today. Though on the surface, there was no clear cut between the winner and the loser and neither side was persuaded, the debate was significant in terms of its social impact from the perspective of public understanding of science. Anyway, it will exert great influence on the popularization of the ecological and ethnics thoughts, the democratization of the decision-making of environmental protection, and the future development of the cause of environmental protection.

This debate about reverence for nature in China referred directly or indirectly to such core questions of environment ethnics as how man should treat nature, man-oriented or nature-oriented when dealing with the relationship between man and nature, and whether there was ethnic relation between man and nature, etc. For a long period of time, the environment ethnics had been the exclusive topic by the scholars, and few public had any idea about it. Especially in China, since the latest theories in environment ethnics have been introduced quite late and the environmental consciousness of the whole society is not very strong, people are not fully aware of the position and function of the environmental ethnics in the new civilization development of modernization. For example, the

introduction of development in ecological ethnics concerning the deep ecology and not-man-centralism were delayed in China, and their influences were limited just to some scholars. What's more, the debate also proved that the common people in China and some environmentalists, though with enthusiastic dedication to the cause of environmental protection, lacked in the strict theoretical accomplishments of environmental ethnics. Some of them only discussed the problems out of their simple emotions and understandings, and sometimes they could not support themselves with rigorous theories. As for those anti-reverence scientists, they did not know this either, and they even thought it scorn to study environmental ethnics, let alone the far-reaching significance of environmental ethnics to the environmental protection work in real world.

This fully indicates that it is very important and necessary to develop and popularize environmental ethnics in China at the levels of higher intellectuals as well as common people.

With its internal conflicts of different viewpoints and the external censure, environmental ethnics has experienced incessant disputes over its development of nearly a century. Actually, such debate is more advantageous for a less developed theory or a subject, and for national development of a country like China with low environmental consciousness in particular. In the debate, it can be found that people differ a lot in their ways of making a point and their procedures of argumentation even from the same perspective of environmental ethnics, and sometimes there are even paradoxes with each other. All these reflect that there is not a relatively stable structural system inside the theories of environmental ethnics on one hand, and on the other hand, there are serious misunderstandings of environmental ethnics. All mentioned above just explain the great need for the scholars and professionals to make further study and deeper excavation of the theories, and the lack of circulation of ecological theories and especially the ecological ethnics in the traditional science popularization.

This debate draws much attention by the public and has propelled the active public participation in environmental protection through the strong promotion of several media. In China, government has always been the dominant force in environmental protection, which constitutes the environmental laws and regulations, makes environmental decisions and is in charge of the large projects of ecological rebuilding, so the public has long formed the fixed thinking mode that the environmental protection is only the business of state and government without any relation with common people. These years the deteriorating environment is threatening the existence and development of every creature in the world, so some men of sights are calling for mass unification to protect environment while unfortunately their voices are too weak to arouse the public attention. In this debate and the related following arguments, such as the case and the controversy over the dam-building of Nu River, some Chinese NGO had contributed a lot to the development of the cause of environmental protection in China, was criticized unfairly. On the other hand, with the spread of such argument of reverence for nature, more people are encouraged to think about this matter, and they have more chances to realize the importance of environmental protection and take part in the activities of environmental protection more actively. It may even be concluded that this debate will lead the Chinese to think about more profound questions in morals, ethic and culture, and will establish a new ecological consciousness at last. Therefore, such debate is of great significance to improve the public ecological and participation awareness, and this is just one of the important aims that the activity of public understanding of science is striving for.

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