

Research on the Spirit of Scientists and Its Value in Higher Education

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Abstract

The country's development and national rejuvenation depend on a quality workforce. With the advance of globalization, the world development pattern is being reshaped, and the competition of science and technology, especially the competition of cutting-edge science and technology, is becoming more and more a high point for countries to climb, and the construction of scientific personnel is becoming a top priority in China's development ambitions. Therefore, facing the pressing issue of how to build a world science and technology power under the new situation, President Xi has re-explained the strategy of reinvigorating the country through science and education and strengthening the country through talents, clearly pointed out the connotation of the spirit of Chinese scientists, and asked to continue to carry forward the spirit of scientists with patriotism as the underlying color, he also called for efforts to build a contingent of scientific research talents in universities, which has pointed out the development path for building China into a world science and technology power in the new era.

Keywords

The spirit of scientists; Higher education; Innovative development.

1. Introduction

Since the 18th CPC National Congress, The Party Central Committee attaches great importance to scientific and technological innovation. Insist on innovation as the first driving force to lead development, and with the unremitting efforts of all scientific researchers and all walks of life, China's scientific and technological level is changing from quantitative accumulation to qualitative leap. In May 2019, the general offices of the General Office of the Central Committee of the CPC and the State Council issued the Opinions on Further Carrying Forward the Spirit of Scientists and Strengthening the Construction of Style of Study (hereinafter referred to as the Opinions), which specifically pointed out the main connotation of the spirit of scientists, called on the whole society to learn the advanced deeds of researchers, and formed a good fashion of respecting science, honoring scientific research and treating scientists in the whole society.

2. The background of formation of the sprit of scientists

The scientist spirit does not come out of thin air. It is in the same strain as the craftsman spirit. It inherits the ultimate purity of China's craftsman spirit, including the careful consideration of the sages' understanding of things and probing into their works. The scientist spirit covers almost all the bright spots of ancient craftsmen. At the same time, the spirit of scientists is particularly brilliant because of the background of the times. President Xi pointed out that the background of the spirit of scientists is patriotism. When we open the history books of China's modern history, every page is covered with the smoke of gunfire and people's blood and tears. From feudal society to semi-colonial and semi-feudal society, until our party led the people of China to achieve nationwide liberation, the people of China completely overthrew the

devastated old society, truly ushered in the dawn of self-reliance among the nations of the world, and also recast the confidence of Chinese people at home and abroad in rejuvenating the nation.

3. The educational value of scientists spirit in colleges and university

Over the past 70 years, generation after generation of scientists have been focused on one place, and China scientists have used their wisdom and sweat to carve spiritual monuments on the journey of the great rejuvenation of the Chinese nation: the spirit of "two bombs and one satellite", the spirit of manned spaceflight, the spirit of landing on the moon, the spirit of Beidou in the new era, etc. These spirits are connected in series to form a great scientist spirit. When Socialism with Chinese characteristics enters a new era, China has made great achievements in development, but at the same time, it is also facing a more severe international situation and fierce international competition. At the key node of building a new development pattern, scientific and technological talents are gradually becoming a scarce resource for national development, and in the process of cultivating scientific and technological talents, the infusion of scientist spirit has become an essential link.

The connotation of scientist spirit is patriotism, innovation, truth-seeking, dedication and education. Among them, patriotism is the unique background of the spirit of scientists. Since the founding of New China, the achievements in economy, politics, culture and other aspects are inseparable from the patriotism's implication and guidance to all personnel in related fields. President Xi pointed out that patriotism is the core of the national spirit, which is deeply rooted in the blood of all Chinese sons and daughters, and the scientist spirit is written with it as the background. Therefore, the scientist spirit and the national spirit are highly coupled, and the scientist spirit should be born in response to the national crisis and flourish in response to the national rejuvenation. Entering the new era, carrying forward the spirit of scientists will also play a driving role in revitalizing and carrying forward the national spirit. Patriotism is an indispensable spiritual pillar for scientists to continue their struggle and prosper the country and save the country in modern times, both in combination with historical facts and from the perspective of the current development of science and technology.

Innovation is to national development, just like the role of oil to industry. President Xi pointed out at the symposium of scientists: "China's economic and social development and improvement of people's livelihood need scientific and technological solutions more than ever before, and they all need to strengthen the first driving force of innovation." In the face of "a great change in a hundred years", it is more urgent for us to break the technical blockade of foreign countries, use science and technology as the primary productive force to improve people's lives, complete the task of building a socialist modernization power on time, carry forward the spirit of innovation, strengthen innovation ability and cultivate innovative talents. The Chinese nation has always been a nation that dares to innovate and is good at innovation. At the beginning of the founding of the People's Republic of China, we were faced with the severe challenge of "economic blockade, political isolation and military encirclement". With the will of foolish men to move mountains and the rock-solid feelings of home and country, the first generation of scientists in New China innovated and developed a large number of superior scientific research projects and quickly transformed them into practical applications in the fields of national defense, military industry and people's livelihood, which provided strong technical support for socialist construction and broke the capitalist powers' strangle new China in the cradle through technical blockade and armed intimidation. Today, the role of innovation spirit in the process of socialist modernization can not be underestimated. In the new era, scientific and technological workers should be brave enough to promote theoretical innovation,

practical innovation, institutional innovation and other aspects of innovation, and open up the first opportunity for self-reliance and self-improvement of science and technology.

The deepest foundation of scientific and technological development and innovation lies in colleges and universities, with the most backbone and the greatest potential. Colleges and universities are the concentration of high-quality scientific research resources and technologies, and also the cradle of future Chinese researchers and scientists. Therefore, colleges and universities should also become the main front to carry forward the spirit of scientists, so that college students and scientific research groups can continue the red blood of old scientists, uphold the spirit of scientists with patriotism as the background while pursuing their ambitions, and forge ahead with their ancestors as the banner to continue to struggle for building a strong country in science and technology. At the same time, as an important part of the Communist Party of China (CPC)'s spiritual pedigree, we vigorously carry forward the spirit of scientists, which can inspire the vast number of scientific research students and researchers to serve the country, lay an ideological foundation for the reserve of scientific research talents in the new era, and gather great strength for the powerful country of science and technology that gets rid of the "stuck neck" problem as soon as possible and is self-reliant in science and technology.

4. Research on ways to carry forward the scientists spirit in colleges and universities

Colleges and universities are not only the cradle of cultivating scientific research talents in China, but also the main position of carrying forward patriotism and implementing the spirit of scientists. Therefore, to teach the spirit of scientists, we should still take colleges and universities as the main coverage and the vast number of researchers and students as the educational objects, explain and tell the story of Chinese scientists' hard struggle, convey the connotation and extension of the spirit of scientists, and guide them to turn this spirit into a continuous driving force for innovative research and development.

4.1. Optimize the structure of scientific research and teaching in colleges and universities, and incorporate scientists' spiritual learning into students' moral education system.

At present, most of the moral education carried out in colleges and universities is confined to the classroom, confined to textbooks and superficial, and fails to really assume the important responsibility of establishing correct value orientation and cultivating talents. The reason is that the curriculum structure of colleges and universities is unreasonable, and students and teachers are burdened with heavy learning and scientific research tasks, while their energy is consumed by red tape such as mountains and seas. This abnormal scientific research and teaching structure not only consumes the energy and reduces the enthusiasm of scientific research units, personnel, students and faculty, but also slows down the progress of scientific research and teaching and other related activities. Some students even have conflicts with moral education and ideological and political education in colleges and universities, which have serious consequences. Therefore, we should optimize the structure of scientific research and teaching, simplify the complicated process, incorporate the spirit of scientists into the moral education system, and tell researchers about the deeds and spiritual outlook of predecessors in related fields, so that they can resonate at the intersection of research, thus stimulating the motivation to move on.

4.2. Carry out educational activities based on scientific research units and combined with the characteristics of colleges and universities

Under the background that scientific research and academic groups are becoming younger, the talent training in China universities is developing along the characteristic road. Therefore, when carrying out the spiritual education of scientists, we should adjust measures to local conditions, combine the characteristics of colleges and universities, fully consider the quality of the educated and other factors, and expand the learning content in a characteristic form, so as to be more easily accepted. On the basis of scientific research institutions (such as laboratories), we should carry out spiritual education for scientists, refine the educational content, explore the deeds and features of iconic figures in the current field, and find the intersection of life and study in the research process of these figures, so as to stimulate the spiritual motivation of scientific researchers to learn from their ancestors and catch up with them.

5. Conclusion

Since ancient times, people in China have paid more attention to the driving role of spirit in people's development. In the writings of the sages, there are tenacity such as "children are determined to go to the countryside, but they will never reach the goal if they don't learn to become famous", and there are also understanding such as "there is no weight in the pen, and they can't move without ambition". In the view of Ma Zhe, we have realized that one of the reactions of consciousness to matter is to guide practice to transform the world. At present, the competition among countries in the world in the field of science and technology is becoming increasingly fierce, and it is even more urgent to cultivate basic scientific research talents. As the cradle of future scientists, colleges and universities should pay more attention to the scientific research personnel, including students and teachers, with rich content and novel forms, and the cultivation of patriotism as the core of scientific spirit education, so as to cultivate scientists who can devote themselves to research, shoulder the heavy responsibility of tackling difficulties, and serve the motherland and the people.

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