

The Influence of Science and Technology Revolution on the Development of Modern Chinese Historiography

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Abstract. Under the influence and influence of the scientific and technological revolution, the development of modern Chinese historiography has distinctive characteristics of the times. Since the beginning of the 20th century, the historical research thoughts with scientific spirit such as Lanke historiography, positivist historiography, new history school, materialistic historiography began to introduce and spread in China. Archaeological artifacts, telegrams, photographs and other emerging technological products enriched the expression of historical materials, meanwhile, due to the characteristics of science and technology, it shows some limitations in the fields of historiography thinking mode, historiography research method and historiography research.

Keywords: scientific and technological revolution; Chinese historiography; modern times.

1. Introduction

The technological revolution has not only greatly increased social productivity, but also influent people's world outlook subtly and raised the awareness level through concrete, realistic materialization and the scientific thinking that it carries. The professional expression of new ideas about new things has been done through various channels, with the formation scientific awareness and the play of their subjective initiative combined the existing and developing knowledge structure. The development process of modern Chinese historiography under the view of scientific and technological revolution is just like this. Regardless of whether the technological revolution has allowed the overall level of Chinese historiography to go further, it is also a unique aspect of the history of Chinese history in terms of the new thinking and new atmosphere brought about by it alone.

2. The Science and Technology Revolution Gives Birth to Chinese Modern History.

Modern Chinese learning was built when "Western learning from East to East" was combined with Chinese civilization, and with the invasion of foreign armed forces and cultural values, it experienced a process similar to "helping the seedlings". The modernization of historiography was attached to the traditional academic system. This is also the case. In the book "Principles of Marxist Philosophy", it is stated that the material is in the first place, consciousness is in the second place and matter determines consciousness. It also said that consciousness is the product of the development of the material world and it is the reflection of the human brain to objective things. Natural science directly acts on the material, which Marx said is "the basis of all knowledge." The most basic and direct driving force of the changes in modern China and the world is the scientific and technological revolution based on the natural sciences. Modern Chinese historiography rose in the late 19th and early 20th centuries, mainly influenced by the first and second scientific and technological revolutions. It includes both specific science and technology and production methods, as well as related scientific principles and thinking systems. The development of modern Chinese historiography has distinctive characteristics of the times. Because of scientific and technological revolution directly or indirectly in the study of modern history in China, the study of historiography has a high degree of homogeneity with the political situation at that time. There have been major changes both in the surface and the internal. By the spirit of "reform" and "revolution", the development of historiography has also shown a variety of forms. In the end, the study of Chinese historiography was independent from the academic

level, and at the same time it fundamentally got rid of its political vassal status, thus modern historiography research has also been able to develop in depth.

3. Historical Concepts Under the Influence of Scientific and Technological Revolution.

In the first half of the 20th century, it is the time when China quickly introduced western science and technology and realized the modern scientific system. With the deepening of exchanges between China and the West, especially with some historians travel and study abroad, the Western historiography theory spawned by the scientific and technological revolution was introduced into the domestic historiography research. In the course of the modernization of Chinese historiography, one of the most obvious contexts is the theory of history, which replaces the traditional theory of circulation and the concept of destiny. Yan Fu, Xia Zengyou, Liang Qichao, Hu Shi, Zhang Taiyan, Li Dazhao and many other scholars are supporters of evolutionary views.

The scientific and technological revolution has made mankind a great success in the field of natural sciences. In this background, social science researchers also hope to obtain completely objective and true scientific understanding of things through observations and experiments. The modern scientific and technological revolution has pushed various emerging scientific studies to the territory of empirical scientific methods. Specifically, acting on the study of Chinese historiography, positivism emphasized the relevant links between the research subjects, summarized the facts and then the historical laws, whose scientific context can be seen through the historians' relevant speech. The first thing is the introduction of positivism theory, which Yan Fu called "the study of measured inner love", and it means to conclude and summarize the laws of development of things by means of observation experiments. Wang Guowei believes that history should be the study of "the reason why things exist and their changes." His method of study "Firstly, by exposing the underground objects and the relics on the paper to each other", "Secondly, by taking the alien's old book and the old nationality of our country to supplement each other" and "thirdly, by combining the concept of taking from abroad and the inherent materials cross-reference each other" is evaluated as "historical materials are the tissue cells of history, historical materials are not or are not accurate, and there is no record of history." [i] Hu Shi's statement is the most influential which is the scientific method is simple, just 'respect the facts, respect the evidence' [ii]. In application, the scientific method is 'bold assumptions and careful verification'. In the 1928 "The Purpose of the Work of the Institute of History and Languages", Fu Sinian pointed out bluntly that History is historical material and this is also the 'central topic' in historical research [iii]. This places the object of historical materials in an important position, which strives to deal with historical materials scientifically and objectively, and advances the scientific study of history.

As the drawbacks of Lankeism, including positivist historiography, gradually emerged, the new school of history represented by Robinson emitted a scientific atmosphere. His historical thoughts mainly believe that the influence of historical movements is influenced by many factors, which emphasize the "multi-factorism" determined by many factors such as economy, geography, and psychology, and paying attention to the links between various disciplines. In fact, the idea of an interdisciplinary and comprehensive study of history is not undetected at home. As early as 1902, Liang Qichao pointed out in the "New History" that Geography, geology, Ethnology, linguistics, group studies, political science, religious teaching, jurisprudence, and leveling are all directly related to historiography. Others, such as ethics, psychology, jurisprudence, and literary science within the scope of philosophy, and astronomy, materialism, chemistry, and physiology within the scope of 'natural science', its theory is often indirectly related to historiography. Taking the axiom of all studies, and joining the hook distance, although it is not fully applicable, but the income must be more. It can be seen that Eastern and Western scholars have resonance in demanding that history should be connected with each other on how to promote the scientificization of historiography research.

With the change of natural science from "science of collecting materials" to "science of finishing materials", the methodology of natural science also transitions from the isolated analysis of

metaphysics to the stage of systematic and comprehensive research. Materialist view of history applied the multi-level, multi-angle and systematic comprehensive research methods of natural sciences to the field of social history. The human society is treated as an organic whole. By examining the interaction between the elements of the social community, it reveals the internal structure of society and its development thus discovers the basic laws of social and historical development and solves the mystery of historical development [iv]. From this point of view, historical materialism has further advanced the scientific level of historical research.

In addition, the scientific and technological revolution has also had a great influence on the research methods of modern Chinese historiography, and these are all "methodologies" under the "principles" of the above-mentioned historical concepts, such as comparative research method, inductive research method, historical statistical research method, double evidence method, comparative study of language and text, study of poetry and evidence history, study of the history of stele, "bold hypothesis, careful identification" method, "historical evolution" test method, history book Chapter Compilation Method, Search for Historical Materials by "Introduction", etc..[v]

On the whole, modern Chinese historiography has a shadow of scientific thinking from several levels such as historical consensus, research ideas and specific methods, and has basically got rid of the traditional historiography research. In the course of Chinese history becoming a "science", research theories such as Lankeism, positivism, new history school, and historical materialism are like the tide washing and baptizing the field of historiography with the help of an evolutionary perspective. It has drawn on and applied many historical research methods with scientific connotation, which has made modern Chinese historiography more scientific spirit and specialization trend more and more obvious.

4. The Technological Revolution Enriches the Forms of Historical Materials.

Since modern times, the influence of science and technology revolution on the form of historical materials is far-reaching. Geology gave birth to Chinese archeology, and historical materials of cultural relics and monuments were given more research value, which forces historiography to jump out of the pile of old papers and has greatly extended and widened in time and space. With the wide use of photoelectric technology in the communications industry, telegrams, newspapers, magazines and other new things have caused the number of historical materials to increase rapidly, and the forms of expression are also more abundant and diverse. Based on physics and chemistry, photography has made people and things that can only be used to describe subjective associations in the past. It has come alive, and to a certain extent it has made up for the lack of historical materials. It has milestone significance in modern Chinese historical materials.

Modern archaeology is based on the influential geology of the scientific and technological revolution. As early as the middle of the 19th century, the theoretical knowledge of Western geology was introduced into China through various channels, including archaeological content. Geology and archeology have gradually occupied a certain position in the study of modern Chinese history. They have not only been mentioned in scholars' research works, but also focused on the historical teaching system at that time. It can be said that the early 20th century was a period of in-depth cognition of the relationship between geology and historiography, and it was also a period when the scope of modern historiography was expanded. This is also the academic background of the "double evidence method" advocated by Wang Guowei and others.

The second scientific and technological revolution is characterized by the extensive use of electricity. Telegraph is a material means of production with epoch-making significance in the development of modern communication industry. There are many compilations of Telegraph drafts in modern historical materials, called "electric manuscripts." Today's compilation and publication include "Xu Shuzheng draft", "Yangshou Garden draft", "Zhangwenxianggong draft", "Huang Xing's unpublished draft", "China and Russia conference to hand over the Telegraph bill for the three provinces of the East", "China and Vietnam survey The boundary exchange draft", "Zeng Jize draft" and so on. According to the survey, the number of modern Chinese newspapers and periodicals from

the late Qing Dynasty to the Republic of China was more than 2, 000, and only between 1900 and 1918 alone, there were about seven or eight hundred kinds of publications.

After the 1860s, photography began to be widely used and disseminated in China. "It is better to hear than see". Compared with the historical materials of the word of mouth, photos can accurately convey historical information to the world. Photography will only be able to fall on the writing and drawing of the past, but also added photos, a real sense of the material carrier of history. These photos truly reflect the contents of modern Chinese society, involving politics, military, economic, transportation, society, culture, folk customs, architecture, etc.. They are also valuable historical materials for understanding and studying the major events in modern Chinese history.

5. The Science and Technology Revolution Acted on the Limitations of Modern Chinese Historiography.

Although the scientific and technological revolution has had a profound influence on the historiography of modern China, it also has its own limitations. First, the development of science and technology has limitations on the influence of historiography. The historical thinking mode is a relatively independent system, which has a relatively independent production process. It requires historians to exert their subjective initiative, and sometimes even needs some imagination. After all, the science and technology revolution covers a wide range of contents. As far as historiography research belongs to the field of social sciences, the influence and role are limited to the relatively simple reference and application of natural science thinking patterns. Second, the scientific and technological revolution has limitations on the research methods of historiography. The application of historical research methods depends on the knowledge accumulation and theoretical literacy of historians, which cannot be simply learned by the scientific and technological revolution. Although some of the research methods of modern historiography mentioned in the previous article were mostly personal efforts of scholars, they were not applied on a large scale in the entire historiography community, and some so-called "methods" had already existed in ancient times, and modern times were only to some extent strengthened, not exactly being a new way to deal with history. Third, scientific and technological achievements have limitations in the field of historiography. The objects recognized by history are things of the past, and they have the characteristics of never returning. Therefore, to examine history mainly depends on objectively existing historical materials, and science and technology are only supplemented. In addition, although the scientific and technological revolution has expanded the expression of modern historical materials, there are certain limitations in the form of historical materials related to emerging technologies such as photographs, telegrams, and archaeological artifacts compared to the historical materials that are more easily preserved and disseminated.

In short, the development of modern Chinese historiography has left many traces of the scientific and technological revolution. Among them, there are not only changes in the historical outlook of scientific thinking, but also concrete physical expressions. It can be said that the scientific and technological revolution has opened a door for the study of Chinese historiography, provided a new perspective to interpret and study history, and accelerated the modernization of historiography research.

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