What's modernization in the 21st century: A Chinese Version

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Modernization, as a global historical trend, initiated in about 18th century, diffused in 19th century, and has become popular in the 20th and 21st century. The contents and characteristics of modernization have changed in many aspects from the 18th to 21st century. Almost all countries in the world are undergoing some kind of modernization consciously or unconsciously at present, and the modernization drive can also be set as a national goal directly or indirectly (Martinelli, He, 2015). China will enter the stage which the modernization becomes the direct national goal in 2020. The modernization study is very important to China and the world.

I. Modernization is a worldwide phenomenon

There is the phenomenon of modernization first and the word of modernization later in the world. As a historical phenomenon, modernization can be viewed as the world frontier of human development since the Industrial Revolution in the 18th century, and the practice and process to chase, reach, and maintain a position in the world frontier. Developed countries strive to maintain their positions in the forefront, while developing countries try to catch up with advanced level. Modernization is like an international marathon campaign of national development; countries in the lead are developed countries, while those lagging behind are developing countries; developed countries may fall behind, and developing countries may catch up and overtake. The switch between these two groups of countries shows a somewhat set pattern (Figure 1). For example, China Modernization Report has presented that 10% possibility of developed countries will get down to developing, while 5% possibility of developing countries will rise up to developed in about 50 years (He, 2011).

Figure 1 Modernization is a worldwide phenomenon: a marathon of national development
Some scholars believe that the modernization phenomenon dates back at least to the Industrial Revolution in Britain and the French Revolution in the 18th century (Bendix, 1967) or before. As early as the 16th century when the Renaissance was near the end, the European society underwent profound changes and the great maritime discoveries made the Europeans believe that a new era — the modern — was approaching. The more revolutions that followed, including the Science Revolution, the Enlightenment, the Industrial Revolution, etc., reinforced this belief. By the mid-18th century, the overwhelming changes in Europe made people believe that “to become modern and to meet the modern needs” represented the trend of the time. Thus a new word modernization was invented (1748-1770), which was used to describe this new phenomenon (Table 1).

### Table 1 From “modern” to “modernization”

<table>
<thead>
<tr>
<th>Item</th>
<th>Modern</th>
<th>Modernize</th>
<th>Modernization</th>
</tr>
</thead>
<tbody>
<tr>
<td>Meaning</td>
<td>Adj. Date: 1585</td>
<td>Verb. Date: 1748</td>
<td>Noun. Date: 1770</td>
</tr>
<tr>
<td>1:</td>
<td>relating to, or characteristic of the present or the immediate past.</td>
<td>1: to make or become modern.</td>
<td>1: the act of modernizing: the state of being modernized.</td>
</tr>
<tr>
<td>2:</td>
<td>of, or relating to the period from about 1500 to the present.</td>
<td>2: make suitable for present-day needs.</td>
<td>2: something modernized: a modernized version.</td>
</tr>
</tbody>
</table>

Source: Webster’s online dictionary

Today, modernization is a polysemant with a stable basic meaning but not unified definition.

1. As a verb, modernize refers to the act and process to realize modernization, or to become modern and meet modern needs, usually the practice and process of chasing, reaching or maintaining the world advanced level; e.g. to modernize agriculture, to modernize industry, etc.

2. As a noun, modernization refers to the status after becoming modernized, that is, the status of having modern characteristics and having met modern needs, usually the world advanced level; e.g. modernization of nations, modernization of science and technology, etc.

3. As an adjective, modernized means having modern characteristics or meeting modern needs; or simply put, the modernized is the latest, best, and most advanced; e.g. a modernized school, a modernized hospital, etc.

### II. Modernization is a change of civilization

Besides being a worldwide phenomenon, modernization is also a change of civilization from academic perspective (Figure 2). The former is the surface, while the latter is the essence. As a civilization change, modernization is a great transformation from traditional to modern civilization as well as the all-round development of human-being and the appropriate protection of the natural environment. It occurs in all fields of human civilization including politics, economy, society and...
culture etc. Yet in the meantime, cultural diversity will remain in existence and play its role for a long time to come. Modernization first occurs in a few early starting countries and then spread all over the world (Bendix, 1967), with some exceptions though.

Figure 2 Civilization is a change of civilization: two transformations of the human civilization since the 18th century

Note: The transformation from agricultural to industrial society is the first modernization while that from industrial to knowledge society is the second modernization. Stoneware represents the primitive society, a wood plough represents the agricultural society, Steam engine represents the industrial society, and a computer represents the knowledge society.

Modernization occurs to all fields of the human civilization, with different characteristics in different filed. Scholars from various disciplines have studied the phenomenon of modernization and formed a variety of modernization theories. Ten of them attract relatively more attention: the classic modernization theory, the dependency theory, the world system theory, the post-modernization theory, the ecological modernization theory, the reflexive modernization theory, the globalization theory, the multiple modernities theory, the second modernization theory, and the integrated modernization theory. They explain the characteristics and principles of modernization from different perspectives. Here I would like to briefly introduce three of them.

The classic modernization theory was formed in the 1950s and 1960s. It is not a single theory but a collection of theories on the phenomenon of modernization. It roughly covers six branches and six schools. Scholars of politics, economics, sociology, and history took different approaches in their studies of modernization and the resulted theoretical explanations are also different. For example, sociologists generally believe that modernization is a kind of social change and is the transformation
form traditional to modern society (Bendix, 1967; Martinelli, 2005). Luo Rongqu (1993), as a historian, believes that in the broad sense, modernization is a worldwide historical process, a global change from traditional agricultural society to modern industrial society; while in the narrow sense, modernization refers to the process where less developed countries catch up rapidly with advanced industrial countries. Western scholars believe that modernity is an abstract term that describes the results of modernization, such as political democratization, economic industrialization, social urbanization, cultural rationalization, modern science and technology, universal compulsory education, etc.

During the 1970s and 1980s, the post modernization theory stepped up onto the academic arena. Instead of a complete theoretical system, the post modernization theory is an assembly of thoughts on post-industrial society, post modernism and post modernization study. For example, the American scholar Daniel Bell(1973) divides the development of human society into three stages: pre-industrial society, industrial society, and post-industrial society. French scholar Jean Francois Lyotard(1984) published Postmodern Condition: A Report on Knowledge, and held that knowledge has become a business good and the most important productivity. The American scholar Ronald Inglehart(1997) believes that the transformation from traditional to modern society is modernization, while that from modern to post modern society is post modernization. The German scholar Wolfgang Zapf (1999) believes that modern society needs continuing modernization, while the American scholar Tiryakian refers to it as “new modernization” and so on.

In the 1990s, the second modernization theory came into being in close relation to the information revolution, knowledge economy, knowledge society, cyber culture, and innovation systems. It was proposed by the Chinese scholar Chuanqi He (1998,1999, 2013). According to this theory, modernization is not only the situation of the world frontier of human development since the 18th century, and the process to reach and stay at this situation, but also the transformation from traditional to modern paradigm of human civilization, with the mutualism between Human-being and Nature and cultural diversity. From the 18th century to the end of the 21st century, the process of world modernization can be divided into two stages, the first modernization or classic modernization, which is the transformation from agricultural economy & society to industrial economy & society, featuring industrialization, urbanization, democratization, social welfare and emphasis on economic growth etc; and the second modernization or a new type of modernization, which is the transformation from industrial economy &d society to knowledge economy & society, featuring knowledgization, informatization, greenization, being innovation-driven, and the improvement the quality of life etc.

Countries and regions that have not completed the first modernization may advance the first and second modernizations in a coordinate way and gather the essence of the two to reduce errors in the modernization process and reach to the future world frontier of the second modernization. This is the integrated modernization, which is the transformation from semi-industrial economy & society to knowledge economy & society, featuring coordinated industrialization, urbanization, democratization, knowledgization, informatization, greenization, etc. It starts the transformation towards knowledge economy & society when it is halfway from agricultural towards industrial economy & society.

There are three roads of national modernization in the 21st century, they are the first modernization, the second modernization, and the integrated modernization. There are about 100
nations stayed in the first modernization while 30 nations enter into the second modernization in 2012, and the percent of countries stayed in the first modernization will get down, the percent of countries entered the second modernization will rise up, and the countries who have not completed the first modernization will push the integrated modernization in the 90 years of the future.

**Figure 3 Three paths of national modernization**

Source: China Modernization Report 2003, China Modernization Report 2010

**III. Modernization is a national goal**

In the past 300 year, the modernization of different countries is different at the started-time, the speed of progress and the national level. Based on their modernization level, countries may be divided into two groups: developed and developing countries (He, 2010, 2012). The former is a relatively small group, while the latter has more members. Developing countries can be further divided into three categories: under-developed countries, preliminarily developed countries, and moderately developed countries. Among the four groups, developed countries have the highest modernization level, moderately developed countries have a modernization level higher than the world average but lower than that of developed countries, preliminarily developed countries have a modernization level below the world average but higher than that of under-developed countries, and under-developed countries are of the lowest modernization level, the level of an under-developed country is usually less than 30% of
the average of developed countries and less than 60% of the world average (Table 2).

<table>
<thead>
<tr>
<th>Group</th>
<th>Modernization level (based on modernization index and 80% of all modernization indicators)</th>
<th>Ranking (recommended)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Developed country</td>
<td>80% of the average of high-income countries or higher (developed countries)</td>
<td>1-20</td>
</tr>
<tr>
<td>Moderately developed country</td>
<td>Below 80% of the average of high-income countries but higher than world average (developed countries)</td>
<td>21-45</td>
</tr>
<tr>
<td>Preliminarily developed country</td>
<td>Below world average but higher than 30% of the average of high-income countries (under-developed countries)</td>
<td>46-80</td>
</tr>
<tr>
<td>Under-developed country</td>
<td>Below 30% of the average of high-income countries (or below 60% of world average)</td>
<td>81-131</td>
</tr>
</tbody>
</table>

Note: the recommended rankings are based on the level of 2005 and are subject to change annually.

Source: He, 2011 *China Modernization Report 2011*

Currently, most countries in the world are undergoing their modernization process consciously or unconsciously, and they are pursuing modernization as a national goal directly or indirectly. Every country has its own goals in the process of world modernization. The goal of developed countries is to remain at the highest level, while that of developing countries is to become developed countries. Among all developing countries, moderately developed ones aim at directly becoming developed countries; preliminarily developed countries aim at becoming moderately developed first and then, developed; under-developed countries need to take three steps: first becoming a preliminarily developed country, then a moderately developed one, and finally, a developed one.

According to *China Modernization Report* (He, 2015), in the past 300 years, developed countries accounted for less than 20% of all countries in the world, while developing countries accounted for more than 80%. For example, in 2012, among all 131 countries with a population of over 1 million, 16% were developed countries, while 84% were developing ones. The US and 20 other countries were developed countries, Russia and 19 others were moderately developed countries, Thailand and 42 others were preliminarily developed countries, and Kenya and 46 others were under-developed countries.

Currently, China is a preliminarily developed country and is in the middle range among all developing countries. In China Modernization Report, it is predicted based on the average annual growth of the modernization index of various countries that China may complete its first modernization by 2020; surpass the world average by around 2040, becoming a moderately developed country and basically realizing modernization; become a developed country by around 2080, fully realizing modernization; and march into the world frontier by the end of the 21st century, realizing its great rejuvenation.

Modernization is not only a national goal to be pursued unswervingly, but also an inevitable path towards the rejuvenation of China. Over the past more than 300 years, some 20 countries with a total population of 1 billion have reached modernized level, and in the 100 years of the 21st century, China
will bring 1.4 billion people into modernization. The modernization of China will be an unprecedented project of great significance and it will make huge contribution to the human civilization. It is worth our ceaseless effort.
Books


Papers

the Health Education in both German States between 1960 und 1980 - Workshop History of Social Medicine (vol 77, pg 622, 2015). GESUNDHEITSWESEN.78(1).


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