

# Promoting Chinese-style Modernization: Reference and Population Theory Thinking

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## Abstract

Global modernization provides rich experiential references and diverse perspectives for Chinese-style modernization. While Chinese-style modernization, as one with a huge population scale, faces unprecedented complexity and uniqueness, requiring the construction of independent knowledge and theoretical systems. This study proposes that the organic integration of Chinese-style modernization and the development of population theory to form a population theory system aligned with China's national conditions is an inevitable measure to advance Chinese-style modernization in a coordinated manner. This interconnected and integrated development model can not only clarify the value contribution of Chinese-style modernization to population theory innovation, but also elaborate on the value guidance of population theory innovation to Chinese-style modernization, thereby providing Chinese solutions and Chinese wisdom for the global modernization process.

## 1. Global Modernization Provides References for Chinese-style Modernization

Modernization is not a unique development path for China. From the perspective of historical evolution, China can find experience references from the modernization process of many developed countries, and form an independent knowledge system for modernization development based on a full analysis of the diversity in the global modernization process.

### 1.1 The global modernization is closely linked to the regional development

Compared to developing regions, developed regions have accumulated advantages in multiple aspects such as factor endowment, development investment, and transformation, making the modernization process smoother, more resilient in the face of risk shocks, more timely state transitions and goal achievement, and more significant modernization development effects (Andrew et al., 2014; Minkov et al., 2021; Buden et al., 2022). That is to say, global modernization possesses the characteristic of hierarchical evolution. The key points for developing countries to catch up and complete transformation in the process of modernization are to recognize gaps, summarize experiences, and form development models that are suitable for their own conditions.

### 1.2 There are certain differences in the promotion of global modernization

The agricultural modernization is manifested in behaviors such as conceptual innovation (Jan,

2018) and technological development (Kondoyanni et al., 2022), which fully shape the appearance of agricultural development and enhance the efficiency of agricultural development. Industrial modernization is manifested in institutional reform (Klarin and Ray, 2019), planning shift (Dominique, 2018), and other elements to ensure the stability of industrial development level and promote industrial development that is in line with relevant policy demands. The modernization of science and technology is manifested in the improvement of the development system of science and technology through organic components such as research and development investment (Park, 2017), human capital cultivation and value transformation (Marchiori et al., 2022). The modernization of education is manifested in the large-scale and specialized training of practitioners (Tijmsa et al., 2022), as well as the continuous improvement of educational concepts and auxiliary technologies, which significantly enhance the inclusiveness of education.

### **1.3 Global modernization provides a new perspective for socio-economic development**

When dealing with development challenges with problem labels such as resource constraints and regional disparities, modernization provides relevant researchers with the experience of shifting from solving problems to acknowledging facts. The focus of relevant researches will shift from proposing solutions to exploring the development dividends hidden in facts (Ude, 2011). When dealing with new things and new stage characteristics that have never been encountered before, modernization has prompted researchers to focus more on the values contained in new things and new stages, and the insights from related researches will present a more positive direction (Gonzalez-Delgado et al., 1952-1970).

## **2. Population theory needs to be updated in a timely manner according to the needs of the era**

Population theory is a systematic knowledge summarized in the process of adapting to the needs of the times. Furthermore, the construction of population theory has clear differences in value positions, but these differences all serve the phased development of different regions without exception.

### **2.1 The development of population theory is closely related to many elements in modernization**

Whether it is Malthusian population theory, Marx's two production principles on population, or Cannan's theory of moderate population, they are all closely related to objective facts such as the historical background of the theory and the social development status of the region where the proposer is located (John, 2004). Although different theories are examined from different perspectives, it cannot be ignored that these population theories all reflect the development of the times and to some extent respond directly and strongly to the demands of the times.

### **2.2 The focus of population theory varies in different stages of modernization**

In the exploratory stage of population theory development, scholars mostly focus on the issue of population quantity, and population theory is mainly explained around regional population quantity. The policy implications of population theory often lie in regulating population quantity. In the pioneering stage of population theory development, scholars began to pay attention to structural issues such as segmented population. Population theory expanded its explanatory power to different characteristics of the population, and its policy implications often focused on the differentiated needs of heterogeneous groups. In the relatively mature stage of population theory development, scholars tried to shift their research focus to complex behavioral issues such as

population migration. Population theory emphasizes the relationship between different population in its explanation, and its explanatory power and reliability are further enhanced. The policy implications of population theory often lie in identifying the motivations of population behavior and reasonably safeguarding the rights and interests of population behavior (Arthur, 1984).

### **2.3 The development of population theory has provided useful references for modernization**

The tension and elasticity formed by the development of population theory give it certain advantages in understanding and explaining macro phenomena. This advantage is manifested in the fact that population theory can provide support for understanding the comprehensiveness of modernization, and provide demographic explanations for the changes, influencing factors, and socio-economic effects of things in the process of modernization, which are often inclusive (Podlázov, 2017).

## **3. The Relationship between Modernization and Population**

From a macro perspective, the relationship between modernization and population is interdependent and intertwined (Lohr, 2013). Compared to identifying unilateral net effects based on causal relationships, deeply considering and dynamically grasping the complex interactive effects between the above two is more conducive to forming a scientific understanding of the relationship between the modernization and population. According to the classification criteria of population research, this study intends to explore the relationship between modernization from four aspects: population quantity, population structure, population quality, and population distribution. Such discussions will help clarify the complex relationship between modernization and internal factors of population, and provide a foundation for further discussion of the relationship between modernization and population theory in the following text.

### **3.1 The relationship between modernization and population quantity**

From the perspective of population quantity, it is an important influencing factor in the modernization process. The reasonable increase in population quantity will expand the positive effects of modernization, providing strong impetus for modernization development with sufficient factors (Koc et al., 2020). On the other hand, the endless increase in population quantity will amplify the negative effects of modernization, resulting in a decrease in land carrying capacity and difficulty in meeting the demand for resources (Maja and ayano, 2021). Therefore, there are changing characteristics and transformation probabilities in the relationship between modernization and population quantity. So how to seize the opportunity of population quantity and reasonably set up development mechanisms to release the dividend of population quantity has an important impact on the smoothness of the modernization process. From the perspective of modernization, the process of modernization will have a certain impact on the population quantity. The modernization process and technological progress have a certain substitution effect on population quantity, which will affect fertility intentions and rates in a certain social feedback mechanism, thereby reducing population quantity. Currently, this effect is mainly reflected in negative population growth (Sasaki and Hoshida, 2017). On the other hand, the development achievements formed in the process of modernization will enhance the inherent confidence of the population to a certain extent. This strengthening effect will act on the fertility willingness and fertility rate in a certain social feedback mechanism, thereby increasing the population quantity. Currently, this effect can be understood as the long-awaited fertility rate recovery (Choi and Kim, 2022). Therefore, the relationship between modernization and population quantity is not unique and fixed. Dialectically understanding the process of modernization, effectively grasping the characteristics and essence of modernization, and realizing the process advantages of

modernization have an important impact on changes in population quantity.

### **3.2 The relationship between modernization and population structure**

From the perspective of population structure, it is an important influencing factor in the modernization process. The orderly changes in population structure will provide a certain impetus for the positive process of modernization, that is, to provide corresponding support for modernization development through structural stability. Specifically, the labor force meets the needs of the job market, and child and elderly care will not cause structural pressure on the labor force (Joseph, 2022). On the other hand, certain changes in population structure will pose certain challenges to the positive process of modernization, that is, the increase in aging will lead to adjustments in multi sector development plans and the transformation of strategic deployment. And the relative reduction of eligible labor force is expected to have a certain shaping effect on the structure of the job market (Li et al., 2022). Undoubtedly, a series of adjustment, transformation, and structural shaping can all be regarded as the challenges in the modernization process. Therefore, the relationship between population structure and modernization is not fixed. Exploring the regulation of population structure changes and adapting to the situation to ensure that the relationship between population structure and social development structure is compatible with the smoothness of the modernization process. From the perspective of modernization, the process of modernization will have a certain impact on the population structure. The improvement of medical level and healthcare conditions in the process of modernization will significantly enhance the life expectancy of the population (Bramajo et al., 2022; Alwago, 2022). In the process of modernization, the pursuit of self-worth in individual concepts has shifted, especially making reproductive behavior is no longer necessary. The relative extension of life expectancy and the relative decrease in birth rate jointly affect the population structure (Liu et al., 2022). Therefore, it is important to comprehensively consider the process of modernization, have a reasonable understanding of the connotation and direction of modernization, and face up to the regulatory effects of modernization on changes in population structure.

### **3.3 The relationship between modernization and population quality**

From the perspective of population quality, it is an important influencing factor in the modernization process. The improvement of population quality is a guarantee of modernization to some extent, because the increase in population education level means an increase in the primitive accumulation of human capital. After reaching a certain threshold, the accumulation of human capital will be transformed into observable and useful achievements in a certain form (Djajić et al., 2019). Therefore, the positive relationship between population quality and modernization is relatively clear. Actively guiding the improvement of population quality and orderly promoting the coupling of education system and social development to maintain the robustness of the positive effect of population quality has an important impact on the smoothness of the modernization process. From the perspective of modernization, the process of modernization will have a certain impact on the population quality. The updating of educational concepts and the evolution of cultural forms in the process of modernization have provided more diverse choices for population development. Behind the diverse choices, this group of people will be influenced by many new ideas. This systematic influence makes the improvement of population quality have a relatively solid initial education foundation, and also provides development conditions for the strengthening and value transformation of population quality in the middle and later stages (Tian et al., 2022). Therefore, calmly considering the modernization process and accurately identifying the details of modernization to seize the development opportunities of modernization have an important impact on improving population quality.

### **3.4 The relationship between modernization and population distribution**

From the perspective of population distribution, it is an important factor in the modernization process. The population distribution itself is complex, in other words, there is a close connection between population distribution and modernization development. The urban-rural situation of population distribution, regional differences, and population mobility and migration behavior closely related to population distribution are all embedded in the process of modernization. In a sense, population distribution can be seen as a prerequisite for modernization development (Jin et al., 2022). Therefore, the relationship between population distribution and modernization is closely linked and rich in changes. A comprehensive understanding of the population distribution situation and the formulation of population redistribution strategies to strengthen the positive effects of population distribution have an important impact on the smoothness of the modernization process. From the perspective of modernization, the process of modernization will have a certain impact on population distribution. The changes in development patterns and the shift in individual cognition in the process of modernization have made population distribution an objective manifestation of population migration and mobility behavior that balances personal interests and social benefits. The preference for modernization sets certain prerequisites for differences in population distribution to some extent, which means that the advancement of modernization will have a significant impact on the dynamic adjustment of population distribution patterns, and this impact is continuous and profound (Aquilino et al., 2020; Xiang et al., 2019). Therefore, in-depth analysis of the modernization process and sorting out the context of modernization are important for understanding the impact of modernization trends on changes in population distribution.

## **4. The Relationship between Modernization and Population Theory**

### **4.1 Modernization has rich effects on population theory**

The pollution issues and resource allocation problems experienced in the process of modernization have laid the foundation of the era for Malthusian population theory. The dilemmas of coordinating population, resources, and the environment, as well as the changes in the population carrying capacity of different factors during modernization, have provided a model reference for the proposal of the theory of moderate population. Different subjects hold different views on the research topic of population quantity, which has indirectly promoted the prosperity and diversity of population quantity theory (Irmi and Clem, 1999). The transformation of productive forces and the evolution of civilization forms experienced in the modernization process have provided practical scenarios for the formation of population transformation theory. The development of society and economy has promoted changes in population in many structural aspects, and its impact on population transformation is continuous. Therefore, modernization provides a broad space for the application of the value of population transformation theory and its theoretical revision (Aprajita, 2022). The changes in concepts and technological development experienced in the modernization process have created a suitable opportunity for the emergence of population quality theory. The change in concepts enables groups with lower social and economic status to receive systematic education, thereby enhancing human capital accumulation and improving population quality. Technological innovation not only improves the quality of educational resources but also promotes the transformation of educational concepts to a certain extent, thus ensuring the stability of population quality improvement. Therefore, modernization provides support for optimizing the internal logic of population quality theory (Settersten, 2007). The changes in models and the evolution of opening-up patterns experienced in the modernization process have established an analytical starting point for the proposal of population behavior theory. The change in development models has transformed population behavior from a single

form to a diversified one, and the evolution of opening-up patterns has greatly expanded the scope of population behavior. Both the complexity and extensibility of population behavior itself have been enhanced in this opening-up process. Therefore, modernization provides a driving effect for the expansion of the value of population behavior theory (Douglas et al., 1993). The strategic adjustments and changes in information reception experienced in the modernization process have provided favorable conditions for the emergence of population development theory. Regional strategic adjustments have gradually made population development a key focus of regions, and changes in the methods and effects of information reception have made the status of population development increasingly prominent in the modernization process. Therefore, modernization provides an optimization driving force for the advancement of population development theory with the times (Park et al., 2012).

#### **4.2 Population theory has valuable contributions to modernization**

While acknowledging that modernization leads the transformation of population theory, it cannot be denied that population theory also influences the modernization process to a certain extent. Population quantity theory displays the characteristics and trends of population changes, value realization laws, and socio-economic effects which provides a value reference for changes in the scale of development during the modernization process. Population transformation theory reveals the inner factors within the society which offers a reasonable explanation for changes in the state of development in the modernization process. Population quality theory presents the accomplishment mechanism of population dividend which provides empirical support for changes in the effect of development in the modernization process. Population behavior theory guides relevant parties to pay attention to the relationship between macro population changes and micro population behavior which gives a strong interpretation for changes in the impact of development during the modernization process. Population development theory states the inevitability of population changes which provides clear guidance for changes in the direction of development in the modernization process (Gori et al., 2020).

### **5. Discussion**

Firstly, Chinese-style modernization is a modernization with the mission of common prosperity. Throughout the process of China's modernization development, the problem of the impoverished population has been satisfactorily solved, and policies to prevent the return to poverty and the deployment of governance models for relative poverty are actively being implemented with continuous investment. In addition, rural revitalization and the narrowing of urban-rural disparities are being promoted simultaneously, the income distribution between urban and rural population is becoming more reasonable, and the level of regional coordinated development is constantly improving. It can be seen that Chinese-style modernization is a development path with Chinese characteristics based on China's population conditions, and will take the population factor as an opportunity to create a new form of civilization with great vitality, thus challenging and shaping the existing western style modernization central discourse system.

Secondly, Chinese-style modernization is a modernization with a huge population, and population quantity and population quality alternately dominate. On the one hand, the huge population quantity vividly depicts the value of China's population, which is embodied in the aspects of providing factor support for economic growth and technological progress, while providing impetus for infrastructure construction and resource allocation. This provides evidence that population plays an important role in the process of Chinese-style modernization. On the other hand, the huge population quantity indirectly reveals the significance of China's population quality, which can be specifically understood as: the popularization of education increases the

probability of population's education and prolongs the number of years of population's education. The increase in the number of years of population's education is conducive to the accumulation of human capital stock and the formation of high-level human capital. And through organic incentive mechanisms and effective mobilization mechanisms, diverse human capital can be transformed into massive productive forces that serve social needs. This provides a basis for the population quality to play an important role in Chinese-style modernization process. The Chinese-style modernization with a huge population quantity has fully integrated and released the dividend of population quantity and population quality, which has had an important impact on the transformation and upgrading of the mode of production, consumption structure, and industrial layout, and plays an important supporting role in accelerating the construction of a new pattern of dual cycle development.

Thirdly, Chinese-style modernization is a modernization that conforms to the regulation of population development and explores opportunities for population development. On the one hand, with the high-quality development of the Chinese economy, there has been a certain reduction in family size, a certain delay in the age of first marriage, and a certain adjustment in fertility concepts. But these systemic transformations are still within the overall framework of a huge population quantity, and modernization provides a macro explanatory framework for systemic transformations. On the other hand, with demographic changes such as family and marriage, negative population growth has become a reality. However, for a certain period of time, negative population growth still cannot shake the unique situation of China with a huge population quantity. In the process of modernization with a huge population quantity, the dual combination of aging and declining birth rates, as well as the employment adaptation and development pressure of eligible labor force, have transformed a series of population development from value expectations to vivid facts. It can be seen that Chinese-style modernization is a modernization that takes the fact of population development as the value guidance, grasps the current transformation and solidly moves towards the new situation. Chinese-style modernization is striving to ensure the consistency of macro policies, ensure the quality of childcare and social security with structural measures, and strive to maintain the enthusiasm of the working-age force and relieve the pressure of life.

## **6. Summary**

Only by dynamically grasping the course of modernization can we look into the future in a more comprehensive manner. Looking back at existing literature, relevant achievements have already clarified the concept of modernization (Ronald and Wayne, 2000), its theoretical framework (Frank and Sighard, 2019), applicable scenarios (Jordi, 2011), and phased characteristics (Maryna, 2018). By insightfully observing the course of global modernization, it is not difficult to find two points: First, the process of modernization generally advances at a pace that adapts to the different national conditions around the world. Second, opportunities and challenges coexist in the course of global modernization.

Only by in-depth analyzing the connotation of modernization can we move towards the future with greater confidence. Reviewing existing literature, relevant achievements fully indicate that the main body of modernization implementation is the population, and the purpose of realizing modernization is to safeguard people's well-being (Geoffrey, 1974). When considering the global modernization situation, it is not difficult to find that all countries need to respond to two key points: (1) Effectively use population theory to realize the subjectivity of the population and the value of its scale, thereby promoting the sustainability of regional social and economic development. (2) Reasonably select population theory to guide population behavior in facing

development risks, and actively transform population factors into a resilient reserve for national development.

At present, the understanding of modernization is relatively mature, and relevant research results are relatively abundant. The exploration of population theory is relatively comprehensive, and relevant research results have reference value. One point that can be further discussed is the organic integration of Chinese-style modernization and the development of population theory. The construction of a framework that combines Chinese-style modernization with population theory can not only clarify the value contribution of Chinese-style modernization to the innovation of population theory to a certain extent but also clarify the value guidance of population theory innovation to Chinese-style modernization. It is conducive to enhancing the integration between the effect of modernization from the perspective of population theory and the value of population theory in the process of Chinese-style modernization. Currently, the concern for the population demonstrated by Chinese-style modernization and the demands for population theory innovation released by changes in China's population development situation both reflect that: at the development stage where Chinese-style modernization and population theory innovation intersect and integrate with each other, Chinese-style modernization provides a solid foundation for expanding the space and enhancing the intensity of population theory innovation, and population theory innovation also improves the connotative depth and perspective height of Chinese-style modernization. Based on the above discussion, organically integrating existing population theory with Chinese-style modernization, and on this basis, conducting critical innovation to form a population theory system that conforms to China's national conditions to guide the development of Chinese-style modernization is an inevitable measure for promoting Chinese-style modernization in a coordinated manner.

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