

Ending an Era of Population Control in China: Was the One-Child Policy Ever Needed?

By ZHIHE WANG*, MING YANG†, JIAMING ZHANG‡,
and JIANG CHANG§

ABSTRACT. The one-child policy of China, which was initiated in 1980 and was reversed in 2015, has been conceived of as a decision made independently and arbitrarily or a product of impulsive decision making. Therefore, it has received a great deal of criticism from Western democracies. Of course, China faced internal problems related to population, such as the Great Famine of 1958–1961. This might be deemed the direct cause of the one-child policy. However, the more powerful factors were indirect and of foreign origin. China's one-child policy was deeply influenced by the West, especially by Western population science. Since the May 4th Movement in 1919, China has had a tendency to worship science because of the Chinese obsession with Western-style modernization. In other words, China's one-child policy is a product of blind imitation of Western population science. The action has resulted in serious negative consequences such as an imbalance of the sex ratio, elder-care problems, human rights violations, undermining of traditional values, and even endangering the regime. Those problems caused China to reverse its one-child policy. The authors believe that China should develop a postmodern population policy with Chinese character, based on organic thinking, which takes human feelings seriously and empowers people and

*Zhihe Wang is the Director of the Center for Constructive Postmodern Studies at Harbin Institute of Technology, Director of the Institute for Postmodern Development of China. He is the author of *Process and Pluralism: Chinese Thought on the Harmony of Diversity*, co-author of *The Second Enlightenment*.

†Ming Yang (ym1631@163.com) is a professor and Dean of the Marxism School at Guangdong Finance University, China.

‡Jiaming Zhang is a PhD. candidate at the Center for BRICS Studies, Fudan University, China.

§Jiang Chang is Dean of the School of Politics and Law at Jilin Normal University.

American Journal of Economics and Sociology, Vol. 75, No. 4 (September, 2016).

DOI: 10.1111/ajes.12160

© 2016 American Journal of Economics and Sociology, Inc.

allows them to act as subjects or agents in decisions about their families, including the size of their family and the selection of gender.

Introduction

On October 29, 2015, the Chinese Communist Party announced that “China will fully implement the policy of “one couple, two children” (CPC Central Committee 2015). This means China officially reversed its 35-year-old one-child policy. The word “fully” here meant that China had previously adjusted its one-child policy and allowed *some* couples to have two children. After the announcement, the policy was extended to everyone.

Initially, in 1980, the one-child policy applied to all couples, but exceptions to that universal policy developed almost immediately. For example, in 1982, couples in several categories—ethnic minorities, rural, or returning from overseas—were allowed to have two children if their first child was a girl or disabled. It was called the “one-and-a-half” (*Yitaiban*) policy. Starting in 2000, couples in which both parents were only children could have two children. It was called the “double single” (*Shuangdu*) policy. In 2013, couples in which even one of the spouses was an only child were allowed to have two children. It was called the “second child alone” (*Dandu*) policy.

The latest policy change will allow all couples to have two children, which is called “the universal two-child policy” (*Quanmian fangkai ertai*). The President of China provided an explanation of the new policy. According to Xi Jinping (2015):

This can enable us to achieve balanced development of the population in China. It is an important move toward demographic balance in terms of the long-term development of China. After serious examination of its likely effects, the Ministry of Health and the Family Planning Committee argue that this policy is feasible.

Ending the one-child policy was a response to a prolonged cry from a large number of Chinese. Therefore, the new policy has received applause from many quarters. It is regarded as “a good thing that accords with the popular will and sentiments” (Peng 2015). Some scholars told a reporter of *China Youth Daily* that China “should have implemented the universal two-child policy much earlier” (Peng 2015). Some

more radical scholars even hope that China will completely eliminate the population control policy and reverse course. They urge the Chinese government to encourage fertility in order to “ensure the sustainable development of China’s population” (Li 2016).

Other critics oppose the complete removal of the population control policy. Zhai Zhenwu (2015), President of the China Population Association and Dean of the School of Sociology and Population Studies at Renmin University, represents these voices: “Given China’s actual condition, it is not yet time for China to remove its population control policy and to encourage people to give birth.” Dr. Ye Tan (2011), a noted female financial commentator, wrote:

China’s birth control policy was at one time a belated fine for having too many children. It was a responsible attitude toward the future of both the earth and the country. It is too early to talk about completely lifting population control policy now. It is better to be considered after the balance is restored.

From these comments, we can see that the internal debate continues about the correct policy to regulate the population of China. To understand the debate, we should understand the motives that caused China to begin its one-child policy in 1980 and to end it recently.

To begin, we must understand what caused China to implement the one-child policy, which White (2006: xi) argues was conceived as “a world-historic policy, one comparable to other grand state-initiated social engineering projects of the twentieth century.” At the other end of this era, we need to discover if there are other reasons for the policy reversal besides the reasons President Xi Jinping mentioned, such as balancing the demographic development of China and providing an adequate supply of labor for the market. This article will explain the reasons for the original policy and the reasons for its reversal. In the end, we will provide a proposal about a new population policy based on organic thinking, which we call “postmodern population policy with Chinese character.”

I. Demographic History of China and Early Thoughts on Fertility

Many people in the West have had a tendency in the past century or two to project their anxieties about overpopulation onto China and India because of their large size. It might come as surprise, then, that the demographic history

of China closely follows the patterns of Europe, including high levels of emigration—to Southeast Asia, in the case of China.

A. Demographic History of China

The comparability of China and Europe in terms of population size dates back to the ancient world. The population of China remained stable (around 50–60 million) from the Han through the early Ming dynasties (1st to 16th centuries), rising briefly to a peak of around 120 million during the Song Dynasty in 1100 (Durand 1960). By comparison, there were around 55 million people in 300 CE in the Roman Empire (East and West), and approximately 50 million people in Western Europe in 1500 (Russell 1958).

China's population began to grow after 1500, doubling in size to about 140 million by 1700, then doubling again by 1800. A number of factors enabled population to grow during this period: irrigation projects, migration to new areas, new crops from the Americas, and higher productivity of grain production. Population grew steadily until the Taiping Rebellion killed somewhere between 30 to 40 million people from 1850 to 1864. China's population therefore grew by only 150 million in one century, from 430 million in 1851 to 583 million in 1953 (Durand 1960).

From 1950 to 1975, China's population grew at around 2 percent per year, but with considerable variation from year to year. During the Great Famine (1958–1961), the population actually declined by around 30 million people, a topic to be discussed below in greater detail. In the years immediately after that event, families tried to compensate for the devastating losses by having more children. In 1965, the fertility rate was 6.2 children per woman of child-bearing age. This was the time when the first proposals were made to limit China's population. However, by 1980, when the one-child policy began, the fertility rate had already fallen to 2.7. As a result of the new policy, it fell to 1.6 in 2010 (U.N. Population Division 2011). The fact that fertility rates were already falling rapidly in China at the time of the one-child policy suggests that compliance was largely voluntary. By 1980, most Chinese families, particularly in cities, were already having fewer children than in the past.

B. Early Chinese Thought on Population

The desire to increase its population has had a strong and long history in China. Throughout Chinese history, fertility has been encouraged by a variety of dynasties. The traditional idea among families was that more children would bring happiness. Rulers also encouraged fertility since for them fertility could benefit both families and the nation-state. In order to increase population growth, a variety of measures were proposed in ancient China.

As far back as in the Spring and Autumn Period (770–476 BCE) and the Warring States Period (476–221 BCE), efforts were made to increase population. In order to promote fertility, Guan Zhong (720–645 BCE), the Premier of the State of Qi, issued an edict to make widows and widowers marry each other and to provide land for them, so they could raise a family. King Goujian of Yue (reigned 496–465 BCE) promulgated many similar rules to encourage fertility in order to enhance national strength. According to the *Guoyu (Discourses of the State—ancient text)* (1988: 182), if any woman remained unmarried at the age of 17, or a man remained unmarried at 20, their parents were considered to have committed a crime.

Also, it was illegal for young men to marry old women or for old men to marry young women. If a pregnant woman was about to give birth, she should inform the government in order for the government to send a doctor to take care of the delivery.

The state would bestow two pots of wine and a dog upon a family where a baby boy was born and bestow two pots of wine and a pig to a family where a baby girl was born. If giving birth to three babies, the government would send them a wet nurse, if twins, rations would be provided by the government. Many dynasties took coercive measures to force women to marry. For example, during the Jin Dynasty (265–420 CE), women had to marry at a certain age; otherwise, the government would arrange their marriages. According to *Jinsbu (Book of the Jin Dynasty)* (1983: 38–43), if parents did not marry off their daughters when they were 17 years old, the government would find some older men for them (Zhang 1983). In the Northern and Southern Dynasties (300~600 CE), there was even a legal rule that a girl's family would be put in jail if she was 15 and not married yet (Ni 2015). This rule created

tension with the populace, since families wanted to keep their daughters at home to work for them as long as possible.

Besides sticks, carrots were also used. Emperor Gaozu (247–195 BCE), the first emperor of the Han Dynasty, enacted a rule: “Any woman who gives birth to a baby is exempt from two years of labor service” (*History of the Han Dynasty* 1962: I, 63). Emperor Zhang (57–88 CE) of the Eastern Han extended the exemption to three years of labor service. The government also provided nutritious food for pregnant women, and their husbands were exempt from one year of labor service (*History of the Later Han Dynasty* 1965: III, 148). Emperor Hui of the Han Dynasty (r. 195–188 BCE) continued the policy of giving land to families that had children. That made China’s population grow fast and reach its first historical birth peak.

Emperor Taizong of Tang (598–649 CE) promoted officials for encourag marriage. The emperor wanted to be sure that men over 20 and women over 15 were married. If not, provincial and county officials were to arrange marriages for them. For those too poor to afford marriage, the rich members of the local community were expected to sponsor them. Promotion of local officials depended on their ability to reduce the number of widows and widowers and increase the number of households with children (Zhan 1996).

Emperor Renzong of Northern Song (1022–1063 CE), enacted a law to nourish the fetus. The government offered to subsidize pregnant women who were poor. After those women gave birth, the government sponsored them with money and rice, and reduced their taxes, sometimes exempting them from taxes entirely. Also, the government established a “baby bureau” to adopt the abandoned babies. The Southern Song Dynasty also treated population growth as an accomplishment of local officials, according to which some officials got promotions. This may be one reason why the Chinese population in the Song Dynasty reached its second peak.

Emperor Kangxi of the Qing Dynasty (1654–1722 CE) announced in an edict that there would be no tax increases for the parents of newly born children. The third birth peak of Chinese population appeared in this dynasty.

China’s population growth thus appears to have been partly a fruit of many rulers’ hard work. In the words of Fuxian Yi (2013: 331), Senior Scientist, School of Medicine and Public Health, University of Wisconsin, Madison:

It is not an accident that China's population is the highest in the world. On the one hand, it is due to traditional Chinese culture that encourages fertility; on the other hand, it is also the result of great efforts made by many rulers.

Chinese traditional culture, especially its culture of promoting fertility, did play an instrumental part in increasing China's population. For Confucianism, filial piety (*Xiao*) first means passing on the family heritage and continuing the family line by giving birth. In other words, breeding posterity is the highest expression of the principle of filial piety. According to Mencius (372–289 BCE) (1861: § 26), the most famous Confucian after Confucius himself: "There are three ways to be unfilial; having no posterity is the worst." Therefore, filial piety was considered to be the strongest motive to have children. According to *Yi Jing (The Book of Changes)*, a common source for both Confucian and Daoist philosophy, heaven has the virtue of fondness for life. "The great virtue from heaven and earth is procreation" (Fu 2007:447). Among common Chinese people, especially in rural areas, the traditional idea has prevailed that more children bring more happiness.

II. Chinese Intellectuals and Birth Control Thought in Modern China

Since Chinese culture has strongly encouraged fertility, Chinese families had great difficulty embracing the notions about birth control and family planning that were introduced to China from the West. Strictly speaking, the idea of birth control is a pretty new and alien idea to China. It dates back only about 100 years, to the period when the Western Enlightenment movement was introduced into China.

The population problem came into modern Chinese sight via Malthus's theory of population, which was introduced into China in the 1880s. It was embraced with great enthusiasm by many Chinese intellectuals who worshipped science, democracy, and liberty. They were big fans of Western Enlightenment principles, and the idea of rational management of population was one of those principles.

Chen Changheng was the earliest demographic pioneer in China. He studied at Harvard University and earned a master's degree in economics in 1917. He returned to China and set out the basic tenets of "a new, scientific approach to population management" (King 2014: 172). In his

first major publication, Chen (1918: 99) analyzed China's population problem in light of Malthus's theory of population: "the biggest cause of China's poverty today stems from China's people giving birth to too many children" in relation to the ability of the land to produce enough food. He proposed to promote birth control and eugenics as the fundamental way to ease population pressures. This was to be the basis of a "reproductive revolution," based on state intervention. He was convinced that only population control would be conducive to the survival and development of the country and its people. His book became very popular and was reprinted seven times in subsequent years.

In March 1920, *New Youth*, a noted monthly magazine, edited by the iconoclastic intellectual revolutionary Chen Duxiu, published a special issue exclusively on population. Economist Gu Mengyu, the author of the first article, extolled Malthusian ideas as "unshakable" truths. Gu (1920) emphasized that "[p]opulation is the key to social problems." He also highly recommended Chen Changheng's *On China's Population* to the readers.

In the process of introducing the notion of birth control to China, Margaret Sanger, a leader and the founder of the birth control movement in America, played an important part. She took two trips to China to promote birth control. On her first trip in 1922, she was invited by Cai Yuanpei to deliver a lecture at Peking University, where he was president. Hu Shi, a leading figure in China's May 4th movement (also called China's Enlightenment movement), served as her interpreter. Her lecture turned out to be an exceptionally grand occasion, with 2,500 Chinese listening to her talk. Sanger (1922) herself described this event in a report to American audiences after returning to the United States. She remarked:

From Korea I went to Peking and there was able to address 2500 students in the Government University of Peking. I also spoke at the Rockefeller Institute as well as at a gathering of bankers, who gave a luncheon in my honor. I was particularly interested in the method of the Chinese in their grasp of the subject, and in their method of quick action when once they have a subject in hand. . . . They took the pamphlet "Family Limitation", translated it into Chinese, and the next morning that material was on the press, and five thousand pamphlets were printed and ready for distribution the next day. If anyone wishes to refute the

Malthusian theory, it is worth while before wasting his time, to take a trip to China, for there the population question with all the horrors that Malthus depicted, is vindicated.

A. Resistance in China to Western Thought

Although the idea of population control became very popular in China in the 1920s due to the efforts made by Western foundations and some Chinese intellectuals, it also encountered very strong resistance.

One of the resistance forces came from nationalists represented by Sun Yat-sen and Liao Zhongkai. Based on the faith that the size of population was an important factor in a nation's rise and fall, Sun Yat-sen, first president and founding father of the Republic of China, claimed to increase China's population. In his youth, he had worried about China's overpopulation. However, influenced by Henry George who "devoted a large segment of *Progress and Poverty* to a denunciation of the Malthusian theory," Sun changed his mind (Trescott 1994). In *San Min Chu I (Three Principles of the People)*, Sun denounced Malthus's ideas as "poisonous." At many points, Sun asserted that China's economic problems were not caused by overpopulation. He believed that China's resources could support a much larger population. When Sun (1928: Lecture 1) made a comparison with other countries' population growth, he felt shocked:

We shall be alarmed if we compare the growth of our population with that of the rest of the Powers . . . Now let us compare nation with nation as to the rate of increase of the population. In one hundred years, America increased ten times, England three times, Japan three times, Russia four times, Germany two and a half times, and France by only one-fourth. . . . Suppose that our population does not increase during the next hundred years and that theirs grows several times larger; they may easily conquer our people, for their number will be much larger than ours.

Based on this worry about China's "racial destruction," Sun stood for increasing China's population. Liao Zhongkai, Sun's main advisor and one of the three most eligible successors of Dr. Sun Yat-sen after his death in 1925, strongly argued against Malthusian theory. Liao took the descendants of Confucius as an example to dismiss Malthusian theory. For the

most revered family in Chinese history, the growth of the Confucian lineage should have been smooth. Confucius was regarded as a sage by the Chinese people, and the emperors of different dynasties honored him by providing a variety of protections for his descendants. However, by Liao's (1985: 284) calculation, if population automatically increased in a geometric ratio, as Malthus predicted, then, 2,000 years later, the number of his descendants should have been 859 septillion (859×10^{24}). What an astronomical figure! In fact, his male descendants number only 11,000, and adding females brings it to, at most, 22,000. As Liao (1985: 284) exclaimed: "The difference between the actual number and Malthus's number is tantamount to that between heaven and earth." In his view, improving productivity can offset overpopulation problems.

Another strong resistance force came from the Chinese Marxist camp. Li Dazhao, Chen Duxiu, and Li Da, as founders of Chinese Communist Party, were its earliest representatives. Mao Zedong joined later. Both early Chinese Communist Party leaders and Mao disputed Malthus's theory and held a "standard communistic critique of birth control," according to which it was not excessive population but rather the unequal distribution of wealth and services that was the root of poverty (Gilmartin 1995: 5).

For Li Da (1984: 145), the population problem is a product of the capitalist system. It is also a condition that sustains the system. Because capitalism needs a "reserve army of the unemployed" (Marx's term), which can be employed at any time, Li regarded both old and new Malthusian proposals as endorsing capitalism. Li also believed that the Marxist movement to create a new society offered a more "fundamental way to solve social problems."

This also explains why early Chinese Marxists did not show strong interest in birth control. They were afraid that it would divert women from engaging in the struggle to bring about fundamental social and economic change. As Felber et al. (2002: 254) explain, the early Marxists in China believed: "Once socialism is instituted, there would be enough for everyone, and the large size of the Chinese population would no longer be considered a problem."

To Li Dazhao, Malthus's theory not only failed to solve the population problem, but it could also be used by imperialists to become a

theoretical tool to endorse aggressive war. Based on his personal observation during his study in Japan, Li pointed out that Japanese politicians often used Malthus's theory to advocate foreign war. As Li Dazhao (1984: 365–366) explained the Japanese view: “The space of earth is limited, but population growth is unlimited. We have to rely on force to project ourselves into other countries” (Li 1984). In his article titled “Malthus' Theory of Population and China's Population problem,” Chen Duxiu (1920) argued that, in essence, Malthus's theory was an instrument for defending capitalism:

Poverty in a capitalist society is not caused by population exceeding the means of subsistence. Instead, most of the time, private ownership and unequal distribution cause poverty.

Chen Duxiu (1920) also blasted Malthus's class prejudice:

EVEN if overpopulation were the sole cause of poverty . . . that is not a reason to restrict the reproductive rights of poor people of the lower class exclusively. Where does the prerogative of the upper wealthy class to reproduce come from? How can Malthus endorse the view that the poor do not have the right to live?

This Marxist critique of inequitable policies based on fear of overpopulation had a deep influence on Mao Zedong.

B. Mao Zedong's Philosophy of Population

Mao Zedong had a strong faith in the value of a large population partly due to his Marxist conception of history, which asserts that masses, not individual heroes, are the makers of history. Mao was also partly influenced by traditional Chinese support for fertility. As Mao ([1949] 1954: 453) explained:

It is a very good thing that China has a big population. Even if China's population multiplies many times, she is fully capable of finding a solution; the solution is production.

Taking a Marxist stance, Mao criticized Malthus's point of view that increases in food cannot keep pace with increases in population. To

Mao ([1949] 1954: 453), Malthus's argument was absurd and utterly groundless.

It was not only thoroughly refuted in theory by Marxists long ago, but has also been completely exploded by the realities in the Soviet Union and the Liberated Areas of China after their revolutions.

Mao ([1949] 1954: 453) was certain that "revolution plus production can solve the problem of feeding the population." In direct response to the question raised by Dean Acheson, U.S. Secretary of State under President Truman, about whether a Communist regime in China could feed its population, Mao's (1954: 453–454) answer was:

Of all things in the world, people are the most precious. Under the leadership of the Communist Party, as long as there are people, every kind of miracle can be performed. We are refuters of Acheson's counter-revolutionary theory. We believe that revolution can change everything, and that before long there will arise a new China with a big population and a great wealth of products, where life will be abundant and culture will flourish. All pessimistic views are utterly groundless.

Since Mao treated population as a valuable resource and believed that a large population was essential to the country, he encouraged the population to multiply. This was coupled with the need to take into account the potential of war. For him, a large population meant strong national defense and more political power. Thus, when China reached a new peak of population at 600 million in 1954, Mao was proud of China's accomplishment (Peng and Ma 2015).

Facing serious economic challenges in the 1950s, Mao had to make some compromises, so he changed his mind on the population problem. Nevertheless, Mao Zedong was a steadfast pro-natalist throughout his life, due to the influence of both Marxism and traditional Chinese culture (Niu 2003).

Whyte et al. (2015: 146–148) hold a different opinion about Mao's views on birth control in the 1950s, citing private conversations and passages in some of Mao's writings that favored birth control, but those passages were deleted from the printed versions. Since contraception contradicted his philosophy of population, Mao never fully embraced

the ideal of population control. This explains why he never publicly published any of his statements about birth control and population control. When he published his important work, "On the Correct Handling of Contradictions Among the People," he deleted the part on population control. So not a single word on birth control appeared in this famous speech (Liang 2008).

As an example of how Mao ([1958] 1966) was able to view population growth in a positive light, despite the challenges it posed, he proclaimed:

China's 600 million people have two remarkable characteristics: poor and blank. That may seem like a bad thing, but it is really a good thing. Poor people want change, want to do things, want revolution. . . . The newest and most beautiful picture can be painted on a blank sheet with no blotches on it.

Of course, Mao's philosophy of population was not the only factor causing the population to rise above the 600 million mark. There were some other factors that made this peak happen. Among them, the effect of Soviet policy on China was important. The Soviet Union became the only model from which China could learn, since the Korean War created animosity between China and the United States and its allies. The number of deaths in the Soviet Union in World War II was some 26.8 million including both civilians and military personnel. Among those fatalities, around 10 million were adult males. That caused the Soviet Union extreme labor scarcity after the war. Therefore, as Chen Jian (2015: 11) explains:

Adopting a natalist policy became an inevitable choice in the post-war Soviet Union. Women were encouraged to be "mother-heroines" by giving birth to many children.

Deeply influenced by Soviet ideology, China copied the same natalist policy. The Chinese government also encouraged fertility by advocating "mother-heroines" and stressing that "the more births, the more glory." Other factors contributing to population growth in the 1950s (after a period of stagnation during the revolutionary turmoil of the late 1940s) were: relative social stability, economic recovery, gradual improvement of

health conditions, a rapid decline in mortality, and restrictions on abortion, sterilization, and contraceptives.

Rapid population growth aroused the concern of the Chinese government and Communist Party officials, especially the major leaders such as Zhou Enlai, Liu Shaoqi, Deng Xiaoping, and Chen Yun, who were in charge of the national economy. They mentioned many times that population should have a planned rate of growth. As a result, a government-sponsored birth control program was first proposed in an “Outline of Agricultural Development” in 1953. A few places started birth control pilot programs.

Among the political leaders who promoted birth control in the early 1950s, Deng Xiaoping, who was then vice-premier, was considered to be “the originator of birth control” (Shi 1997: 46–47). According to Zhou Enlai, it was “comrade Deng Xiaoping who owns the inventor’s right of birth control” (Hong 2015).

Responding to a letter proposing free contraception from Zhou Enlai’s wife (Deng Yingchao), who was the Vice-Chair of the National Women’s Federation, Deng Xiaoping (1954) urged a relaxation of the strict rules pertaining to birth control. He instructed that contraception was “necessary and appropriate” and that the government should “take effective measures” to provide access to it (Shi 1997: 46–47).

In December 1954, a special government group was convened exclusively to discuss population and birth control issues. Liu Shaoqi (1981: II, 172) delivered an important speech to the group, in which he stressed the dramatic change of circumstances and the urgent need for birth control:

Of the population increase in the entire world, in China it is the fastest. Today the annual rate of increase is two per cent. Without birth control, the increase would be even faster. Will we or will we not have difficulties after the population increases? We’ll have difficulties, many difficulties, and they can’t be solved all at once. In Beijing, for example, grain, clothing, and medicines are all insufficient. *Our country has a great burden in this respect*, and many individuals have difficulties. In short, the difficulties of giving birth to many children are very great, the parents, household and the children themselves all [experience] difficulties, as well as the the society and the country. Clothing, food, medicine, schools, etc., are all insufficient . . . Because of this, we should endorse

birth control, not oppose it. None of the opposing arguments hold water. It is incorrect to say that birth control is immoral. To say that birth control has a bad influence, this is not a real problem.

In February 1955, the Ministry of Health submitted a report to top government officials, in which it proposed that under existing conditions, China should control birth properly. The report further argued that there should be no future opposition to voluntary birth control action by the masses. In his report on China's second five-year economic plan, Premier Zhou Enlai (1956) twice mentioned the need to "advocate birth control properly" (Zhou 1956).

For a brief period in 1957, Mao himself felt the need to compromise and to promote a voluntary birth planning effort. In his speech concluding the Third Plenary Session (Enlarged) of the Eighth Central Committee of the Chinese Communist Party, delivered on October 9, 1957, Mao (1999: 308) remarked:

Of course birth control is still necessary, and I am not for encouraging more births . . . It's not OK to have human reproduction in a state of total anarchy—we need birth planning."

But Mao soon backed off from his support of the birth control program due to the Great Leap Forward. In January 1958, on the eve of the Great Leap Forward, Mao declared to the Supreme State Council: "For now, a large population is better" in achieving goals of economic production. Why did Mao change his mind? In our opinion, it was the "Anti-Rash Advance" movement that caused Mao to change his mind. That movement was launched in 1956 by Zhou Enlai, Premier of the People's Republic of China, and Chen Yun, Vice-Premier in Charge of China's Economic Affairs.

According to the "general line" (of ideology) in the Transition Period raised in 1953, which was approved by the Party Congress, China was going to finish the socialist transformation of agriculture, handicrafts, capitalist industry, and commerce in 15 years. But Mao decided to accelerate the transformation to catch up and even surpass the developed countries in order to show the advantages of socialism.

In January 1956, the *People's Daily* published a New Year's Day editorial calling for "greater, faster, better and more economical results" in

building socialism. With Mao's support and encouragement, "the rash advance" dominated Chinese thought. Impatience filled the air of China. In fact, as Li Gucheng (1995: 91) later observed, China's economy already signaled danger signs: "excessive targets, declining product quality, and unbalanced economic development." As an example, the central government approved a budget of 12 billion Yuan for infrastructure investment in 1956, but only two months later, the provinces and departments were told to raise that number to 15.3 billion, which was later revised to 18 billion, and then 20 billion. An increased investment in infrastructure necessarily led to a national fiscal deficit. At the same time, the supply of raw materials, such as steel, cement, and coal, fell short of demand. This naturally caused the national economy to experience tension (Luo 2014).

In reaction to the excesses caused by trying to accelerate economic growth to an unrealistic level, economic leaders such as Zhou Enlai and Chen Yun proposed an "anti-rash advance" campaign by advocating realistic and down-to-earth plans. They proposed to advance steadily, on a comprehensive and balanced basis. Mao did not feel comfortable about their "anti-rash advance" campaign. In his speech at the Third Plenary Session (Enlarged) of the Party's Eighth Central Committee held in the autumn of 1957, he began to criticize the 1956 effort to oppose rash advance and, at the Nanning Meeting of January 1958 and the Chengdu Meeting of March of the same year, he subjected it to further severe criticism. Mao Zedong ([1957] 1993: 720–721) argued that the "against-rash-advances' policy swept away the principle of doing things with greater, faster, better and more economical results." Mao's criticism of the anti-rash advance campaign arose from the following considerations: first, the need to break through the encircling blockade of imperialism; second, the desire to promote a strategy of overtaking capitalism and gaining national self-respect; and third, and most important, the worry about stifling the enthusiasm of the masses and the cadres about taking part in socialist construction.

Under such political circumstances, it was natural for Mao to ignore Deng Xiaoping's ideas about birth control and population planning endorsed by Zhou Enlai, Liu Shaoqi, and Chen Yun. On the contrary, Mao not only derailed their effort to limit population growth, he encouraged an even higher rate of fertility in the context of the "Great Leap Forward," whose purpose was to rapidly convert China into a modern industrialized country. A larger population would mean greater

manpower, as Mao emphasized: “The more people there are, the stronger we are” (Party Documents Research Office 1995: 274).

Objectively, the demand for labor, required for rapid expansion of production under the Second Five Year Plan, also endorsed population growth. As Mao exclaimed: “We can catch up with Britain in ten years, and in ten more years, we can catch up with America” (Feng and Jin 2011: 1777).

In addition, the Sino-Soviet split occurred in 1959, at which point the whole of China launched an anti-revisionism movement and made preparations for war. Since China was preparing for war with the Soviet Union, a huge population would be an important asset. In Mao’s words, “China has a population of 600 million; even if half of them are killed, there are still 300 million people left. I’m not afraid of anyone” (Tian 2013).

Coupled with the anti-rightist movement, birth control became a target to attack. In 1959 and 1960, *Guangming Daily* and the *Journal of Peking University* published a series of articles to criticize the “new theory” of population. Ma Yingchu, a famous economist, was labeled the “Chinese Malthus” for advocating birth control. Voices in favor of birth control had to remain silent from 1958 to 1961.

C. Great Famine, 1958–1961

Another important factor that made birth control unmentionable was the Great Famine of 1958–1961, which caused millions of deaths. During that period, communities collectivized agriculture and converted from farming to steel production. As a result, the food supply fell below the minimum required to support the population. There is no consensus about the death toll. According to Chinese government statistics, “there were 15 million excess deaths” in this period (Poston and Yaukey 1992: 212). Many Westerners regard as authoritative Frank Dikötter’s (2010) tendentious study, which estimates “at least 45 million deaths.” However, some critics, including famine scholar Cormac Ó Gráda, have pointed out that Dikötter uses methods that inflate his estimates for dramatic purposes.¹

A number of Chinese analysts have tried to arrive at a number that can be supported by the data available. According to Tian Jiyun (2004), former Vice-Premier of China, during the three years, “the number of abnormal death population reached several tens of millions.” Cong Jin

(2009: 272), a professor at the National Defense University, estimates that “from 1959 to 1961 the abnormal deaths plus the reduction of births reached about 40 million.” By using the method of demography and historical geography on the basis of the administrative division of county and “fu,” a study by Cao Shuji (2005), a history professor at Shanghai JiaoTong University, showed that China’s abnormal death toll during the period from 1959 through 1961 amounted to 32.5 million. Yuan Longping (2009), a Chinese agricultural scientist known as the father of hybrid rice in China, told a reporter that “40 million people died of hunger” during the so-called three years natural disaster.

The staggering number of deaths naturally caused the birth control project to be set aside. In the words of Peng Peiyun, former Minister in Charge of the State Family Planning Commission:

Starting from 1959, coupled with the birth rate dropping sharply and a substantial increase in mortality as the three years natural disaster happened, negative population growth first appeared in 1960. Naturally, the birth planning work was put on the back burner. (Peng and Ma 2015)

Also, the death toll in the early 1960s explains the sudden rise in fertility from 1965 to 1970. The huge surge of births in the aftermath of the Great Famine offers a new insight into the situation that led to the one-child policy. The birth rate was probably trending downward in the 1950s, but it rose dramatically for a few years after 1964 as an automatic cultural response to the loss of so many people. From 1970 to 1979, the total fertility rate (children per women of child-bearing age) fell by 50 percent, from six children per woman to three (Gu and Cai 2009).

The faction of the Chinese Communist Party that endorsed birth control wanted to restore efforts to limit population growth. The Great Leap Forward had failed to make China a developed modern country. Instead, it had pushed China’s economy to the edge of collapse. This made the leaders in charge of economic affairs feel very anxious. For example, Liu Shaoqi, President of China, said to Tian Jiaying, Mao’s secretary: “Now the situation becomes clear. The dictatorship of the proletariat will collapse if things keep going on like this” (Party Documents Research Office 2003). Facing such a serious situation, the Party Central Committee had to take action.

In the aftermath of the Great Famine, the Chinese government started to put population development into national economic plans. A series of emergency measures was formulated, including population control, to stop the economic situation from deteriorating further. Chen Yun (1962) argued that if reducing urban population were not treated as an essential measure:

the fiscal deficit will continue, and market turmoil will happen ...
Regarding reducing population, we must make up our mind. Otherwise, there will be no way out. (Chen 1962)

Seriously promoting birth control was an important measure to help the Chinese government to deal with the crisis. Its core goal was to maintain a balance between population and food supply by reducing population (Huo 2015). In the 1960s, China's population entered its second peak birth period. From 1962 to 1972, the annual number of births in China averaged almost 27 million, totaling 300 million. In 1969, China's population exceeded 800 million. Beginning in the 1960s, the contradiction between population growth, on the one hand, and the economy, society, resources, and environment, on the other, had become apparent. In view of the situation, the Chinese government issued a call for family planning and advocated the use of contraceptives.

However, the government was unable to develop this plan. The turmoil of the Great Proletarian Cultural Revolution, starting in 1966, caused the whole of China to fall into a state of paralysis. It interrupted birth control programs. Various departments of family planning as well as government offices at all levels were smashed by Red Guards in answer to Mao's call for radical reform. Birth planning work was dismissed as "feminine triviality" and even "revisionist" by Jiang Qing, Mao's wife and head of the rebel faction in power (Sun Muhan 1987: 134). Under those circumstances, birth planning projects were almost entirely suspended for more than a decade.

Finally, in 1973, under Zhou Enlai's leadership, China began to promote family planning throughout the country. When China made its Fourth Five-Year Plan (1971–1975), it officially proposed "One is ok, two is perfect, three too much."

III. The Political Transition in 1978 and the One-Child Policy

Deng Xiaoping gradually gained the reins of power and became China's paramount leader in 1978 after Mao Zedong and Zhou Enlai's deaths in 1976, which signaled the end of the Cultural Revolution. Deng not only launched the "reform and opening" policy, but he also resumed birth control to limit China's population growth, a policy he had advocated for two decades. In March 1978, the Fifth National People's Congress adopted a new constitution, and Article 53 of that constitution affirmed that the state advocates and encourages birth planning. This was the first time that birth planning was formally included in China's Constitution. The National Health and Family Planning Commission (1979) advocated "One is best, two at most" (*Chinese People's Congress Magazine* 2016).

In September 1980, China's one-child policy was effectively launched when the Communist Party's Politburo issued an influential "open letter" to party members and the youth league that urged them to take the lead in having one-child only in order to keep the population below 1.2 billion at the end of the 20th century. The "open letter" is considered to mark the real beginning of China's one-child policy because "it was the first central-level 'policy' advocating one-child for all couples country-wide that bore the imprimatur of the nation's top decision-making body" (Greenhalgh 2013: 323).

In order to promote this one-child policy, the National Family Planning Commission was established in 1981. The 12th Party Congress, held in 1982, defined birth planning as "a basic national policy of China" (*Chinese People's Congress Magazine* 2016). Birth control work was emphasized as "the first job of the Party" (Liang 2014: 365). In Deng's words: "We regard birth control as a strategic issue. We must achieve this goal. Otherwise, the fruits of economic growth would be eaten by population growth" (Peng and Ma 2015).

Although the one-child policy came from the central government level, it met "strong resistance" from citizens, especially those living in rural areas. This was not surprising, given the deep-rooted influence of favorable attitudes toward fertility in traditional Chinese culture, and farmers' need for family members who can work. Promoting birth control was conceived of as "the most difficult job in the world" (Peng and Ma 2015).

Thus, the central government had to adjust this policy. According to the adjusted policy, government officials, factory workers, and urban residents were only allowed to give birth to one-child. The couples in most rural areas, except those around Beijing, Shanghai, Tianjin, or in Jiangsu or parts of Sichuan, were allowed to give birth to a second child if their first one was a daughter. Ethnic minorities were allowed to have two children. But the third one was absolutely prohibited. The only exception was Tibet—"No Constraints for Tibetans" (Peng and Ma 2015).

The main measures to implement the one-child policy are administrative and economic methods.

According to the administrative method, government employees and workers in state-owned companies could get fired for violating the one-child policy. Party members who violated one-child policy were subject to disciplinary action, even removal from office. The extra children were barred from being registered. An official document, known in Chinese as *Hukou* or household registration, was required in order to gain access to state-provided education and healthcare. Undocumented children were often called "black children" in Chinese media. They had difficulty opening a bank account, getting married, or finding formal employment.

The economic method of enforcement consisted of a steep fine imposed for having extra children. The amount varied depending on different areas and situations. A couple could be fined from 15–20 percent of their income "if they had an unplanned second pregnancy" (Schaeffer 2012: 89). Forced abortions and sterilizations were supplemental measures if a couple violated the one-child policy. With coercion, this measure caused a great many human tragedies.

IV. Western Influences on China's One-Child Policy

Why did Chinese leaders adopt this one-child policy? This policy has often been conceived of as a decision made by some Chinese leader independently and arbitrarily or a product of impulsive decision making. In Chinese scholar Yuwen Deng's words, "it was made with just a pat-on-the-head" (Deng 2015). Therefore, it has received a great deal of criticism from Western countries whose political systems are democratic. The unspoken assumption is that anything can happen in a dictatorship. Greenhalgh and Winckler (2005: 329) clearly express this assumption:

In a democratic political system, it would have been very difficult to adopt stringent birth limits. Without a democratic political system, it may remain very difficult to abolish them.

There is some validity in their statement. The lack of a Western democratic political system could be regarded as a necessary condition for implementing a one-child policy, but not a sufficient reason. Many other nondemocratic countries with growing populations did not adopt such a policy. Why did China alone adopt this policy?

Our study shows that Chinese leaders adopted the one-child policy for various reasons. Ironically, China's one-child policy was deeply influenced by the West, especially by the Western Enlightenment philosophy, which is dominated by the worship of science and reason. In other words, as Greenhalgh (2008: 99) observes, "Western ideas . . . shaped[d] China population policy." China's one-child policy somehow is a product of blind imitation, a product of mechanically copying Western population science. Beyond question, the direct causes of the one-child policy were pressing internal problems in China, such as the Great Famine, but the Western influence, although it was indirect, was crucial. Unfortunately, this factor has been neglected in both academia and the public in China, as well as the rest of the world.

This influence from the West on the development of China's one-child policy was embodied in the form of scientific ideas, financial support, development theory, agricultural theory, and environmental theory.

A. The Influence of Scientism

The term "science" (*Kexue*) in the strict sense of Western science has only 100 years of history in China (Zhou 2014). Chinese adopted the term (*Kexue*) from Japan. A lot of Chinese in the early 20th century studied Western science in Japan, since it is close to China, and the cost was relatively low. Almost all of the leading figures in the May 4th (1919) Movement, or Chinese Enlightenment movement, worshipped science. They believed in science as a final source of authority. They regarded science as the only correct and valid way to know the universe. Chen Duxiu (1919), one of the leading Enlightenment thinkers in China, also a founder of the Chinese Communist Party,

claimed that only science and democracy could save China: it could save China from “all its dark sides, including its political, moral, and academic thought levels.” Hu Shi, another leading person in the May Fourth Movement, claimed:

During the last thirty years there is one term which has acquired a supreme position of respect in China; no one, whether informed or ignorant, conservative or progressive, dares openly slight or jeer at it. The name is science. (Ouyang 1998: 52)

Daniels (1971: 289–290) reminds us that Americans during the Progressive Era (1890s to 1920s) also treated science as an object of worship:

Nothing was more important to that Era than “science.” It is a word to conjure with; a word to sweep away all opposition by labeling it “benighted,” “romantic,” or “obscurantist”; a word to legitimize any program no matter what fundamental reorientations it might entail or what sacrifices it might call upon particular groups to make. In the name of science, one might reorganize a city government, fundamentally alter the relations between labor and management, revolutionize a school curriculum, or consign whole races of men to genetic inferiority.

It is clear that American worship of science produced an important influence on the Chinese scientism of May 4th Movement. Western-oriented Chinese intellectuals had embraced modern science with fervor, seeing the adoption of science as a powerful means to critique China’s traditional culture and to put the nation on the road to modern civilization. To them, science was associated with modernity and national salvation and “was imbued with almost omniscient and omnipotent powers” (Greenhalgh 2008: 76). Scientism became a dominant force. To some extent, it “determined the direction of China’s modernization” (Ma 2013: 236).

Scientism, or the worship of science, did not disappear in China as the May 4th Movement lost its momentum. On the contrary, scientism still remains powerful. From Deng Xiaoping’s famous statement in 1978 that “science and technology are primary productive forces,” to the strategy of invigorating the country through science, technology, and education, to Hu Jintao’s “scientific outlook on development,” faith in science has

not diminished at the national level in China. Without exception, national leaders have shown that natural science and modern technology remain objects of worship. Scientism has become a new dominant ideology in China. As Greenhalgh (2008: 331) has pointed out, scientism became the “de facto ideology of the Deng regime.” “Science became the authority in whose name everything had to be done” (Greenhalgh and Winckler 2005: 290). In the words of Wu Guosheng (2008), philosophy professor of Peking University, all these popular phenomena in China today—from “scientists in decision making,” to “the rule of engineers,” from “quantitative management” to “performance data”—constitute “a new form of scientism in contemporary China.”

In such an atmosphere, it is no wonder that population science was feted as a queen by Chinese leaders since it can use mathematical methods and new computer technologies to treat population issues in quantitative terms. According to Greenhalgh (2008: 76–77):

It promised to solve all the problems left by the Mao era. Practically, it offered rationalities, logics, techniques, and tools with which to bring population into being as an object of science and governance; frame the population problem and solution; and rationalize the process of planning and policymaking.

Also, with its powerful language of numbers and mathematics, science in general, and population science in particular, played a politically instrumental role in persuading China’s leaders of the urgency of population control and convincing government officials as well as the public of the legitimacy of birth control policy. It was population science that told Chinese leaders that if every married couple were to have one-child, that would be, as Yu Zhenpeng exclaimed in 1980, “the most ideal way to solve our country’s population problem” (quoted in Greenhalgh 2008: 249). Song Jian was a leading progenitor of China’s one-child policy and one of the foremost defense scientists and engineers in China. He used cybernetic models based on mathematics he learned from the West to make demographic predictions. He and his colleagues showed decisionmakers that the optimal population for China would be around 650 to 700 million people, two-thirds of China’s 1980 population. If China did not implement a national one-child

policy, the country would face food and water shortages. Song's group persuaded Deng that China's population would have to be restricted to 1.2 billion in order to meet economic targets for the year 2000 (Greenhalgh 2008: 236). Song and his colleagues predicted in 1980 that, if each couple were to have only one-child, China's population would rise to 1.05 billion by 2000, or to 1.22 or 1.42 billion if each couple were allowed to have two or three children, respectively. Also, according to their predictions, if China did not take any measures to control its birth rate, "China's population would reach an estimated 44.26 billion by 2080" (Song et al. 1980).

Considering Deng's overseas experience and the lofty status of science, it is no wonder that Chinese leaders were determined to implement the one-child policy in order to maintain China's population below a threshold of 1.2 billion by the end of the 20th century.

B. The Influence of Western Foundations and Organizations

American private foundations also played an important part in facilitating China's one-child policy by providing financial and technical support as well as guiding principles. Among them, the U.N. Fund for Population Activities (UNFPA), an organization mainly initiated and funded by the U.S. government, was a major player. (It is often referred to simply as the Population Fund.) UNFPA started to work together with the Chinese government in May 1978. From 1972–1978, UNFPA's executive director, Mr. Natif Satik (from Pakistan), visited China eight times.

In September 1978, Deng Xiaoping met with UNFPA's first executive director Mr. Rafael Montinola Salas. During this meeting, Deng (2015) said:

The population problem now has become a heavy burden of China. The increase in population every year offsets a great deal of the increase in our production. Now, we have made a birth control plan and are striving to keep our population within 1.2 billion by the end of this century.

By the end of September 1999, "UNFPA had provided US\$177 million of assistance and carried out 123 projects in China" (Chinese Embassy

in Norway 2004). This was a huge amount money, given the fact that China then had little foreign exchange. Its average foreign exchange reserves were only \$147 million from 1950–1980. In 1978, when the program began, China’s reserves were \$167 million.

The money from UNFPA was used to sponsor programs such as census protocols, birth control, and demographic research. According to Greenhalgh (2008: 99–100):

With financial support from the United Nations Fund for Population Activities (UNFPA), which opened an office in Beijing in 1979, the Ministry of Education began setting up a nationwide system of population teaching and research institutes, designating the unit at People’s University the national center.

The UNFPA programs were considered to have produced a “far-reaching impact on China” (Liang et al. 2015). Many Chinese demographers and family planning officials were trained and educated by them. In the opinion of Yi (2013: 102), an early critic of the one-child policy, “the UNFPA helped China establish its whole birth control system, demography research system, and population data system.” In 1983, UNFPA gave the First United Nations Population Award to General Qian Xinzhong, Minister of Family Planning. The U.N. Secretary-General expressed “deep appreciation” of the way in which the Chinese government had “marshaled the resources necessary to implement population policies on a massive scale” Greenhalgh (2010: 101).

Besides UNFPA, the Rockefeller Foundation and some Japanese financial groups also provided financial support for China’s birth control project (Liang et al. 2015). Since its inception, the Rockefeller Foundation “had supported Chinese birth-control campaigns by supplying condoms and having the Peking Union Medical College manufacture contraception pills” (Yuehtsen 2002: 119). Part of the foundation’s mission to China from 1913 onward was to promote the concept of population control by awarding funds to studies of birth control in China. Rockefeller viewed population growth as “an outstanding problem” for China (Ninkovich 1984). For John D. Rockefeller III, “a key figure in the postwar population-control movement,” population control was a matter of prime importance, second only to the nuclear arms race. Therefore,

he “made birth control his cause” (Critchlow 1996: 8). In 1953, he established his own organization, the Population Council.

On June 29, 1973, Mao Zedong met David Rockefeller, the younger brother of John D. Rockefeller III. After his return to the United States, David Rockefeller (1973) praised “the social experiment in China under Chairman Mao’s leadership [as] one of the most important and successful in human history.” Coincidentally, on July 16, more than two weeks after the meeting, China established the Family Planning Leadership Group.

In addition, the American government also devoted a lot of money to support birth control. From 1965 to 2004, the U.S. government invested a total of \$17.3 billion in controlling the population of developing countries via the U.S. Agency for International Development and UNFPA (Clowes 2004). The U.S. National Security Council (1974), as the highest presidential advisory body on foreign policy, also played an important part in this process when it produced a top secret memorandum (NSSM-200) on how the United States intended to manage population issues in other countries. This document, published shortly after the first major international population conference in Bucharest, was the result of collaboration among the Central Intelligence Agency (CIA), the U.S. Agency for International Development (USAID), and the Departments of State, Defense, and Agriculture.

NSSM-200 was made public when it was declassified and was transferred to the U.S. National Archives in 1990. It defined a policy that had secretly guided administrative action for at least 14 years and probably continues to do so. The primary purpose of U.S.-funded population control efforts was to maintain access to the mineral resources of less-developed countries. According to the U.S. National Security Council (1974), elements of the implementation of population control programs could include:

- the legalization of abortion;
- financial incentives for countries to increase their abortion, sterilization, and contraception-use rates;
- indoctrination of children; and
- mandatory population control and coercion of other forms, such as withholding disaster and food aid unless a country implements population control programs.

NSSM-200 also specifically declared that the United States was to cover up its population control activities and avoid charges of imperialism by inducing the United Nations and various nongovernmental organizations—specifically the Pathfinder Fund, the International Planned Parenthood Foundation (IPPF), and the Population Council—to do its dirty work.

For many years, the U.S. government has funded the U.N. Fund for Population Activities (UNFPA). One of the main targets of UNFPA money was the People's Republic of China (PRC) and its widely criticized forced abortion and family planning program. According to its own documents, the UNFPA has donated more than \$100 million to China's population control program; bought and custom-designed a \$12 million IBM computer complex specifically to monitor the population program; provided the technical expertise and personnel that trained thousands of Chinese population control officials; and presented China with a U.N. award for the "most outstanding population control program" (Clowes 2015). Thus, there is overwhelming evidence that the draconian measures applied by the Chinese government drew heavily from a script drafted in Washington, DC in the highest levels of government.

C. The Influence of Economism

Western economism also played an instrumental role in the making of China's population policy. Economism is the belief that "primary devotion should be directed to the expansion of the economy." Economism conceives of economic development as the ultimate goal of any society. Economistic thinkers believe that economic development or economic growth "will solve the most important of the world's problem" (Cobb 1999: 28).

Deeply influenced by economism, Deng Xiaoping started his reforms and the opening of China to the world by replacing Mao's idea of "politics in command" with "economics in command." Economic development became the supreme language for shaping policy and was treated as having overriding importance. The hegemony of economism prevailed in Deng's era. China's policymakers were convinced that

through development, China could solve all problems on its road to modernization.

In Deng's words: "Economic work is the biggest political work now. The economic issue is the overwhelming political issue, and so-called political work consists of the four modernizations" (Deng 1994:194). For him, "whether or not we can realize the four modernizations determines the fate of our country, our nation" (Deng 1994: 163).

In the eyes of economic thinkers, population would hinder development. The population problem was defined "as a crisis of modernization" whose only solution was the one-child policy (Greenhalgh 2008: 25). Economic officials feared that population growth would prevent the modernization program from succeeding. Population growth became an all-purpose villain in the official press, blamed for everything from declines in labor productivity to sagging economic growth. The population issue pushed China's modernization into the distant future (Greenhalgh 2008: 116). That economic anxiety was a major factor that pushed China to implement its birth control programs. In Deng's words: "We must control population growth. If we allow people to give birth to children desperately, our development would fall" (Hong 2015).

D. The Threat of Food Scarcity

Some Western elites from Dean Acheson to Lester Brown, following in the tradition of Thomas Robert Malthus, claimed that China would not have enough food to feed its people. The prospect of a food shortage was treated as a weapon to scare China. According to the food scare theorists, population growth was the main threat to China's modernization project. Because of likely food shortages, feeding China's huge population was considered to be "an insurmountable task" (White 2006: 245). To Zbigniew Brzezinski (1997: 164), former assistant for national security affairs to U.S. President Jimmy Carter, the scarcity of energy and food was China's Achilles' heel, which could be used as a weapon to prevent China from becoming a truly "global power."

Lester Brown (1994: 10) was the primary analyst to sound the alarm: he claimed that China was headed for a Malthusian disaster that would affect world food prices, based on his observation of a sudden spike in

China's internal food prices in the spring of 1994. Brown (1994: 10) noted that the population of China was growing by 14 million people per year and that Chinese consumption of meat was increasing even faster due to urbanization and rising incomes. At the same time, China's capacity to produce food was projected to shrink, due to the ongoing conversion of cropland to nonfarm uses. The problem facing China was not starvation, but the prospect of a gap between the market demand for food and its production, which would require China to import large quantities of grain. Brown (1994: 10) believed that "this gap will dwarf anything the world has ever seen." He argued that the resulting grain deficit would be many times larger than Japan's—which was then the world's largest grain importer.

In 1990, China produced 329 million tons of grain and consumed 335 million tons, with the difference covered by net imports of just 6 million tons (Brown 1994: 17). Allowing only for the projected population increase with no rise in consumption per person, China's demand for grain would increase from 335 million tons in 1990 to 479 million tons in 2030. Even if China's booming economy produced no gains in consumption of meat, eggs, and beer, a 20 percent drop in grain production to 263 million tons would leave a shortfall of 216 million tons, a level that exceeded the world's entire 1993 grain exports of 200 million tons. Brown (1994: 19) predicted that China's food scarcity will become the world's scarcity and its shortages of cropland and water will become the world's shortages. "Its failure to check population growth much more aggressively will affect the entire world."

More than 10 years after the article was published, Brown thought that the question "Who will feed China?" was still relevant. He believed that the severe reality of food scarcity made population control necessary. Accordingly, in a newspaper interview in Beijing, Brown (2008) praised China's birth control policy: "In my opinion, one thing China did very well in the past 20 to 30 years was controlling its population. If China had not implemented birth control, its population would be much greater than it is."

Publicly, China condemned this kind of pessimism (White 2006: xii). China's Vice-Minister of Agriculture, Wan Baorui, announced China's official disagreement with Brown's point of view. He claimed that China would nearly double its grain production by 2025, and thus

China would have no trouble in satisfying its increasing food needs. Some Chinese scholars and experts also published articles to refute Brown, with titles such as: “China Feeds China,” “Chinese Can Feed Themselves,” and “China Has the Capacity to Feed Itself.” Nevertheless, China did take the food scarcity issue seriously. Brown (2013: 148) later recognized that his analysis touched a scar in the national psyche of China that was created by the devastating Great Famine of 1958 to 1961. The insecurity associated with dependence on the outside world for part of its food supply was psychologically difficult to accept.

This also explains the reason why China so stringently carried out its birth control plan for more than 30 years. In his conversation with the President of Togo on April 8, 1989, Deng said: “Our food is just barely enough . . . Our greatest difficulty lies in overpopulation, and our job of controlling population growth has not been done very well” (Hong 2015).

E. The Influence of the Western Environmentalists and Demographers

The Western environmental movement and some environment-oriented demographers also played an important role in shaping China's one-child policy. Some Western demographers and environmentalists directly urged China to take action to control its population. White (2006: xii) explains that fears of a “population explosion” were widespread in the 1960s and 1970s:

Many Western population experts had urged the use of all necessary measures to halt the rapid growth of global population, and a few went so far as to advocate the use of coercive and punitive ones.

The result, according to Greenlough (2008: 99), was an acceleration of Chinese programs to conduct research on population issues: “In the late 1970s and early 1980s, China was home to what surely was one of the most rapid institutionalizations of a field of population studies in history.” From around 1976–1977, population research offices began to open in scattered universities all over China.

Among the warnings by Western demographers and environmentalists, none were more influential or more terrifying than Paul R. Ehrlich's *The Population Bomb* and the Club of Rome's *The Limits to Growth*.

Dr. Ehrlich (1968: xi), a Stanford University biologist, claimed in his book, which sold millions of copies:

The battle to feed all of humanity is over. In the 1970s hundreds of millions of people will starve to death in spite of any crash programs embarked upon now. At this late date nothing can prevent a substantial increase in the world death rate.

He predicted 4 billion deaths, including 65 million Americans. Ehrlich was so sure of himself that he warned two years later that if population growth were allowed to continue, “sometime in the next 15 years, the end will come.” By “the end,” he meant “an utter breakdown of the capacity of the planet to support humanity” (Haberman 2015).

Likewise, the Club of Rome asserted that we were breeding ourselves to extinction if population growth and resource consumption were to continue unchecked. Meadows et al. (1972) predicted that the world would come to an end by about 2070. Once the Chinese leadership accepted the Club of Rome’s theory, they naturally believed that population growth was sabotaging the nation’s modernization. They longed for a radical solution.

These warnings from Western scientists made a deep impression in China, perhaps because of recent experience with famine. But what is noteworthy is that the scenarios that spurred action in China did not emerge from internal discussions but from popular books in the West. As Ridley (2015) notes:

There is a disturbing fact that the world has not yet faced. The One Child policy’s origins lie not in oriental culture, nor even in Marxism, but in western environmentalism.

As the sinologist Susan Greenhalgh (2006: 165) has documented, the architect of the one-child policy, Song Jian, got the idea directly from reading two of the Western environmental movement’s founding texts, which he came across while at a technical conference on control systems in Helsinki in 1978. While there, he came across *The Limits to Growth* and *A Blueprint for Survival*. The latter was a call to action by over 30 British scientists, who demanded that governments commit themselves to stopping population growth, which would include an end to immigration. They even proposed reducing Britain’s population

from 56 million to 30 million (Greenhalgh 2006: 133). Song Jian was struck by that recommendation. Song (1986) later described being “extremely excited about these documents,” and determined to apply this method to China’s birth control project. Dr. Song went back to China in 1978 and published the main themes of both books under his own name, gaining rapid promotion for himself and his allies. He argued that Deng’s regime must act decisively to depress its population trajectory, as if it were a guided missile, lest the Chinese economy become ecologically unsustainable. Song et al. (1980: 5) then published an article about the one-child policy, which would shrink the population over time, describing it as “a comparatively ideal scheme for solving our country’s population problem.”

V. Problems of the One-Child Policy

When Communist Party leaders adopted the one-child policy in 1980, their hope was to curb birth rates in order to help lift China’s poorest and increase the country’s global stature by realizing modernization. The policy has been regarded by the Chinese government as “a glorious success” (Eberstadt 2009). Officials of the Chinese Health and Family Planning Commission (2014) have credited the one-child policy—adopted in 1980 at the dawn of China’s reform and opening era—with preventing 400 million births and helping the nation rapidly improve its economic fortunes and limit even greater strains on natural resources. It relieved the pressure from resource use and the environment, and it remarkably improved people’s life condition and development status. Many observers outside China also applauded the move as a reasonable reaction (White 2006: xii). But at what cost to the Chinese people?

It is hard to deny the negative consequences of the one-child policy. Many Western critics prefer to view the recent policy reversal from a merely economic angle, as if the change had nothing to do with the burdens the law has imposed on families. For example, Chris Buckley (2015) described the motives for lifting the one-child policy in terms of the age distribution of the population:

Driven by fears that an aging population could jeopardize China’s economic ascent, the Communist Party leadership ended its decades-old “one-child” policy.

Economic concerns were indeed a factor in the decision to end the one-child policy. But there were many negative personal and social consequences that caused the Chinese government to adjust its one-child policy, first by allowing rural families, ethnic minorities, and only children to have two children, then by ending the one-child policy for everyone and allowing all married couples to have two children. This was largely a response to a prolonged cry from Chinese society for change.

In this section, we shall consider the range of negative consequences that resulted from imposing coercive limits on family size. They include: an imbalance of the sex ratio (30 million bachelors), elder-care problems, human rights violations, the emergence of 1 million families that have lost their only child, the loss of traditional values (such as filial piety), and the deterioration of the legitimacy of the regime.

A. An Imbalance of the Sex Ratio

One well-known negative consequence of the one-child policy is that it has led to a drastic imbalance between the sexes in China. On a global basis, the average sex ratio at birth (SRB)—or baby boys per 100 baby girls—typically ranges between 103 and 106. But a 2005 “mini-census” in China revealed a sex ratio of 119 baby boys for every 100 baby girls at birth, and 123 for children ages 1 to 4. That number was higher than 130 in some provinces of China (Eberstadt 2009).

This unnatural sex ratio has led to the emergence of a large number of men who are never likely to marry. According to data released by the China National Bureau of Statistics (NBS), by 2020 there may be 30 million more men than women, 30 million men of marriageable age who will not be able to find a bride (*China Business News* 2015). It is the following three factors that directly caused this skewed gender ratio: “an overpowering preference for sons; low or sub-replacement fertility; the availability of gender determination technologies like ultrasound, which facilitates widespread sex-selective abortion.” There is little doubt that all of these factors are associated with the one-child policy.

B. Elder-Care Problem

Another unintended consequence of the one-child policy is the rapid emergence of an aging population in China. According to a research report by

the China National Committee on Aging (CNCA), the older population will reach 200 million by 2014, 300 million by 2026, and over 400 million by 2037. The peak of 437 million will come by 2051, which will be larger than the entire population of the United States. China's "few children, many elderly" situation affects not only its economy by reducing the ratio of workers to retired people, but also imposes greater personal elder-care burdens on hundreds of millions of Chinese families (*Urban Express* 2012).

As a traditional adage says, Chinese have faith in "storing up grain against famine, and raising children against old age." Aging parents have traditionally lived with their children, who have felt a responsibility to take care of them. However, the urbanization and the one-child policy are breaking down those social conventions. China now faces a major challenge: how to take care of a rapidly aging population as China reaches the era when the first generation (those born in the 1980s) of the "one-child policy" parents are becoming parents themselves, and "4-2-1" has become the typical family structure. The "4-2-1" family structure is an inverted pyramid family structure, composed of 4 grandparents, 2 parents, and 1 kid in a closely bonded Chinese family (Zhang 2013).

Those who were born in the 1980s were once seen as the happiest generation since they were the only kids in the family and were raised and perhaps spoiled as princes and princesses in the family by parents. Now these pampered children have become parents who have to be ready to take care of the elderly, financially, physically, and mentally, when their parents (now grandparents) get old. Meanwhile, they have to struggle to make a living and build up their own families. The following three stories can somehow reveal the difficult situation the new generation of parents is facing:

- Zhang Hongwu at 36: "My father-in-law is in the hospital. I have to ask my father for help due to the lack of helpers."
- Zhao Mingxin at 38: "My mother is critically ill, my father is getting old. I have to shoulder everything myself."
- Li Xiaohui at 40: "My father fell ill, my father-in-law fell ill, too. Whom should I look after?"

All three children (all male) of elderly parents have encountered unprecedented anxiety and impotence and have experienced the

Figure 1

A graphic depiction of the "4-2-1" problem: Two parents struggle to support four grandparents and one child.



unprecedented pressure of looking after elders. As the reporters comment, this is not their individual impotence. It is the anxiety of a group. "The elder care problem for the first generation who was born after China's one-child policy was put in place is emerging" (Liu et al. 2015).

C. Undermining Traditional Values

The May 4th Movement--the Chinese version of the Enlightenment--treated Chinese tradition as trash and attempted to smash tradition in favor of Western science and democracy. It failed to achieve much success in 1919, when these ideas were first put forward. The weight of tradition was still too strong at that time for a small group of sophisticated university students to overturn.

But now the one-child policy has to some extent achieved this goal by undermining the Chinese family and filial piety, which have been core elements of Chinese tradition. The concept of family loyalty in China was so important that it was one of the few moral and ideological concepts to

survive the decade-long turmoil and chaos of the Cultural Revolution relatively unscathed. Family ties have long been a key component within Chinese society, and family affection correspondingly has become a core value of Chinese society (Upton-McLaughlin 2013). It is the bond that ties together the whole family as well as Chinese society. That is why Chinese always put family and state-nation together. (They call it “*Guojia*” or state-family, or they refer to it as “*Jiaguo*” or family-state.) Family happiness is the goal that both individuals and the society pursue.

But now in the one-child group, the first generation has no siblings, the second generation has no uncles and aunts, and the third generation will have no relatives at all. As Daly and Cobb (1994: 246) have pointed out:

In order to stop population growth the Chinese had to adopt the drastic measure of the one-child family. Just how drastic a social change the one-child family represents can be appreciated by noting that it implies the absence of brothers, sisters, cousins, uncles, and aunts.

One might say that “the bond or kinship of the whole family is totally cut off” (Xing 2015). This generation has become “the loneliest generation,” a loneliness that “never goes away,” despite the ending of the one-child policy in 2015 (Hernández and Qin 2015). The lack of kinship will produce a destructive impact on Chinese traditional culture, which highly values family and family affection.

In addition, the “little emperor” phenomenon in China, attributed to the one-child policy, is also eroding another core traditional Chinese value: filial piety. The virtue of showing respect for one’s parents, elders, and ancestors is considered the most fundamental Confucian value, the root of all others. As Ji and McNeal (2001) have pointed out:

A result attributed to the one-child policy showed that China has moved away from its traditional values of respecting older people as authority figures and has shifted more focus to the fulfillment of the single child’s needs.

Arguing against the contention that the one-child family disrupts filial piety, Francine M. Deutsch (2006), Professor of Psychology and Education at Mount Holyoke College, shows that attitudes toward care for the elderly does not vary according to number of siblings:

Comparisons between only children and those with siblings showed that only children were as likely to plan on helping their parents as were those with siblings and were more likely to intend to reside in the same city. The only children seemed to feel especially responsible for their parents' happiness because of their singleton status.

But Dr. Deutsch's conclusion neglects the pervasive phenomenon of personality defects in only children who are spoiled by being treated as the center of a family. According to a 2013 study by Australian researchers, children who grew up without siblings exhibit traits such as selfishness, pessimism, and risk aversion that are not as prevalent in children with siblings (Fishwick 2015). Also, Deutsch's study fails to explain why so many elderly Chinese people commit suicide. Li et al. (2009) showed that the Chinese elderly population has a higher prevalence of suicide than the general population. The over-65 age group has the highest rate of completed suicide, reaching a range of 44.3 to 200 per 100,000, which is four to five times higher than the general population.

It is not fair to ascribe a high suicide rate among the elderly solely to the one-child policy since other factors also contributed to the phenomenon, such as the effects of economic reform, poverty, and cultural changes (Dong et al. 2014). But it is safe to argue that the one-child policy is one of the leading causes of suicide in the Chinese aging population.

D. Human Rights Violations

Aside from the resulting imbalance in the sex ratio, the elder-care problem, and the erosion of traditional values, the one-child policy also has caused gross violations of human rights by taking coercive measures to carry out this policy. These coercive measures included: mandatory sterilizations, mandatory abortions, mandatory insertion of intrauterine devices, the outlawing of births to mothers under the age of 23, and the imprisonment of those who fled to give birth elsewhere. These were features of the implementation of the policy.

These violations not only drew strong criticism from international society, but they also aroused the attention of the Chinese central government. In 1984, following the Party Central's instruction, a national family planning conference was held, at which Wang Wei, the Minister in charge of the State Family Planning Commission, criticized the:

barbaric methods used by some local authorities such as dismantling the houses of households, taking away livestock, confiscating stored grain, destroying the basic means of production and subsistence, even putting handcuffs on some people and putting those who have an attitude into jail, ... as well as punishing whole communities with fines for failing to report illegal births. (Liang 2014: 462)

In addition, other draconian measures such as forced sterilization and forced abortion also seriously violated the reproductive rights of Chinese people. According to White (2006: 136), by 1988, "almost 17 percent of all married women in China had experienced one induced abortion, and a further 8 percent had already had two or more." Between 1983 and 1991, "more than 30 million women were forcibly sterilized" (Evans 2000: 111).

These forced sterilizations and abortions not only harmed women's health, they also caused mental harm to women. Greenhalgh and Winckler (2005: 263) found that "young Chinese women have been committing suicide at an alarming rate, 66 percent higher than that of rural men." By the 1990s, 56 percent of all women worldwide who committed suicide were Chinese and "and most of them are in rural areas" (Cartier 2004: 282). These data are significant because, generally speaking, men are more likely to commit suicide than women. In most countries, the male suicide rate is several times higher than for females. According to the World Health Organization, China is the only country on the planet where the suicide rate is higher for females than males. Schaeffer (2012: 92) proposes that "the one-child policy in China created a situation for women that is unprecedented." Although that statement was made without consideration of other problems facing rural women in China, nevertheless, the high female suicide rate in China may have been influenced by the one-child policy.

E. Endangering the Regime

Closely related to human rights violations discussed above, the one-child policy also threatened the legitimacy of the Communist Party. This was due largely to the contradictions and conflicts caused by coercive measures such as forced abortions and compulsory sterilization. Although the central government prohibited those measures, local and provincial officials implementing the policy frequently did not pay

heed “because helping to keep the birthrate low was often a path to a promotion” (Taylor 2015). As Chen Jian (2015: 189) observes:

When some local authorities misuse their power, like imposing mandatory sterilizations and forced abortion, they not only create a large number of human tragedies, but they also seriously undermine the government’s image.

As the government personnel who directly interacted with women, family planning staff and local officials not only needed to persuade some 10 million women with unplanned pregnancies to have abortions, they also had to visit hundreds of millions of families to collect a fine for unplanned births.

Each time these family planning officials dealt with women and families turned out to be a social brush or conflict. Those social brushes or conflicts constituted a major source of “the disharmony between the people and the government” (Z. Liang 2014: 431). In the words of Chen Jian (2015: 188), Vice-President of the Chinese Society of Economic Reform, who used to work for the National Family Planning Commission:

In the history of our Party, there has never been anything like birth control which has been based on the confrontation with the masses. The one-child policy seriously trampled on the rights of citizens, especially their reproductive rights. This severely endangered the legitimacy of the ruling party and government at lower levels in rural areas.

Hence, it was imperative to terminate the policy.

VI. Conclusion: Exploring a Postmodern Population Policy with Chinese Character

Through the discussions above, it is apparent that neither the implementation of China’s one-child policy nor its termination was “made with just a pat-on-the-head.” This article shows that the influence from the West, including Western scientism, Western financing, Western economism, Malthusianism (the Western theory of overpopulation causing food shortages), and Western environmentalism, played an instrumental part in facilitating China’s population policy in general, and the one-child policy in particular. Western ideas and financing

played such a crucial role because they satisfied China's strong desire for modernization, which has been China's dream for the past century. This is different from Mao Zedong, who valued a large population partly due to his Marxist mass conception of history and partly due to the impact of traditional pro-natalist culture, which favors population growth. Chinese leaders of the post-Mao era, like Deng Xiaoping and Chen Yun, treated the population problem as "the major obstacle" to modernization. Thus, it was necessary for them to reduce the growth of population by implementing the one-child policy.

However, the one-child policy was far from a panacea. Instead, it caused a large number of severe economic, social, political, and psychological problems such as an imbalance in the sex ratio, an elder-care problem, human rights violations, destruction of traditional values, and eventually a situation that endangered the regime. Hence, it is time to end this policy.

But what is the next step? Where will China's population policy go? Coupled with the growing voice of criticism of the one-child policy, an opinion has emerged according to which China should totally abandon any birth control policy and take a *laissez faire* stance on population. Some Chinese scholars, such as Yi Fuxian (2013: 353), argue that "the primary responsibility of government is to develop population." Others, such as Liang Jianzhang et al. (2015), urge the Chinese government to "let go of birth" and to "encourage birth." They want to let the market handle fertility. Yu Peiyun (2015) agrees that "market as an invisible hand can adjust the growth rhythm of the whole society to the best balance point," stressing that the population problem can be solved through economic development. Zhang Xu (2010) has faith in the slogan: "Economic development is the best contraceptive."

This faith in the market seems misplaced, particularly given conditions in China today: the high percentage of farmers in the population, the pressure of environmental limits, and the low average education level. If China goes from one extreme to another by eliminating *any* policy to limit fertility, it is very likely to cause social problems as serious as the one-child policy did. One of the problems will be anarchical behavior and a possible return to the child marriages that took place in traditional Chinese villages. A story from the *South China Morning Post* (2016) indicates the basis for this fear: a 13-year-old boy in Binyang

County, Guangxi Province, married a 16-year-old girl. The report mentioned that the boy's baby face was especially eye-catching (*The South China Morning Post* 2016).

China needs a policy that is not based on swinging back and forth between tight restrictions and unrestrained individual freedom. The underlying ideology of modernity teaches us to think that every problem has a simple, direct solution, whereas, in fact, social systems are complex, organic systems. Both the one-child policy and market-oriented population policy are products of modern mechanistic thinking that neglects the whole system and the internal relationships between the components of the whole. Both treat people as instruments, either as political tools or economic tools. As Ye Tan (2011) has pointed out, we once encouraged fertility by advocating "heroine mothers" to produce future soldiers, before we actually identified them as human beings, but now when we encourage fertility for the sake of a demographic dividend, we are again threatening the identity of human beings by treating them as economic tools" (Ye 2011).

People are not machines. They are organisms, relational beings, beings with feelings. They are ends, not means. If we treat the population merely as a technological issue, we will inevitably neglect the social and cultural consequence. Any policy based on this understanding will be doomed to be a tragedy. As Greenhalgh and Winckler (2005: 320) commented, "the birth program, originated to reduce 'the state's burden,' has created burdens on the state that have been and will be enormous."

Hence, a new population policy is needed. We call it a "postmodern population policy with Chinese character."² It is based on organic thinking—on systems thought and traditional Chinese thought about maintaining a balance among opposing principles (*yin* and *yang* along many dimensions). A postmodern policy about fertility offers a middle way by going beyond the two extremes of birth restriction and birth anarchism.

This new policy starts with the assumption that things and people constitute each other and that separation is not the normal condition of life. Different from the modern outlook that views human behavior mechanically and atomistically, a postmodern view has an organic and holistic vantage of point, more like a complex novel than a social

science study. It pursues an understanding not only of the harmony of different components of a society and its population dynamics, but also harmony among the environment, the economy, and social development. Unlike modern thought that proposes to abandon traditions as outmoded and superstitious, postmodern policy critically appreciates tradition while it learns the most valuable elements from the modern West. Although postmodern thinkers have no intention of simply “turning the clock back” and embracing every aspect of tradition, at the same time, the closer a reform is to tradition, the more likely it is to become successful.

Different from modern population policy that ignored human feeling and emotion due to its worship of science and reason, postmodern population policy takes human feelings seriously. People's tears count. Different from modern policy that treats population as a burden that must be managed from above, postmodern population policy conceives population as a valuable resource that is largely self-managing within the proper context.

More important, a postmodern population policy empowers people and allows them to act as subjects or agents in decisions about their family plans, including the size of their family and the selection of gender. This sharply contrasts with government's coercive involvement, whereby “NGOs are the major players in persuading people to have a family plan by gentle education” (He 2012).

Does this mean that the government should have nothing to do with fertility issues? No, the government does not need to give up involvement. It can shift from management (direct control) to governance (indirect control), which is different from the modern population policy that seeks directly to control specific outcomes by intervening at many points in social behavior. By contrast, indirect action proposes to alter the context in which events take place. For postmodern thinkers, indirect action is generally more powerful than direct action because it does not generate resistance.

Applying this principle to China's population control, the Chinese government does not need to dictate family size and enforce it with draconian measures. It merely needs to develop policies that increase the rates of urbanization and female employment, improve the educational level of women, and supply water and public transportation to informal

settlements on the urban periphery. The availability of those opportunities are known to increase the autonomy of women and reduce fertility without directly interfering in people's lives and decisions.

Is it possible for China to implement such a postmodern population policy? It would be doomed to be a tortuous road to develop a postmodern population policy since there is no a ready-made example for China to learn from, and the scientism as well as the mechanical thinking still prevail. But the painful lessons of the one-child policy, the resurgence of Chinese traditional culture, the awakening of individual rights consciousness, and the philosophy of President Xi Jinping enable people to feel hopeful.

Take Xi Jinping's philosophy of population as an example. As China's "most powerful leader since Mao," who is called "the new Mao" by some Western media, he holds high the banner of Mao Zedong (Tsang 2015). As Mao's successor, Xi Jinping (2014) values population and emphasizes that population is a "huge power" and vows to "always put the people first." More important, he has taken decisive actions, such as terminating the one-child policy and providing 13 million unregistered citizens (most born in violation of China's one-child policy) with crucial documents, giving them access to long-denied healthcare and schooling (Hunt and Dong 2015). All of these actions convince us that it is very likely for China to develop a postmodern population policy since it is a nation-state of *Yijing* (*The Book of Changes*), with a strong faith that "change is possible."

Notes

1. Ó Gráda (2011) contends that Dikötter's book is dismissive of academic work on the topic; it is weak on context and unreliable with data; and it fails to note that many of the horrors it describes were recurrent features of Chinese history during the previous century or so

2. Although "postmodernism" in the West is predominantly a product of French deconstructionist and poststructuralist thought, the form of postmodernism that has been most successful in China is based on the "philosophy of organism" of Alfred North Whitehead. The basic idea is that verbs, adverbs, and prepositions supersede nouns, process replaces substance (thingness), field theory contextualizes atomic events, and relationality mediates self and society. Whitehead's thought is much more closely aligned with Daoism, yin-yang thought, and the *Yijing*, all of which overcome philosophical dualism and psychological alienation, which remain perennial problems in Western thought. Like John Dewey (many of whose ideas were similar to Whitehead's), engagement

and intellectual life are intertwined in what Whitehead ([1933] 1967) called the “adventures of ideas.” The application of Whitehead’s thought to contemporary social problems is in its infancy, so our conjectures on population issues in this final section should be seen as preliminary ideas, not a definitive position, which Whitehead would have considered impossible to achieve, in any event.

References

The references below with a double asterisk (**) are written in Chinese.

- Brown, Lester R. (1994). “Who Will Feed China?” *WorldWatch* September–October: 10–19. <<http://www2.lv.psu.edu/jxm57/explore/china2011/pdfs/Who%20will%20feed%20China.pdf>>
- . (2008). “That ‘Who Will Feed China’ Is Still an Issue.” *Global Daily*. June 22. [Chinese]
- . (2013). *Breaking New Ground: A Personal History*. New York: Norton.
- Brzezinski, Zbigniew. (1997). *The Grand Chessboard: American Primacy and its Geostrategic Imperative*. New York: Basic Books.
- Buckley, Chris. (2015). “China Ends One-Child Policy, Allowing Families Two Children.” *New York Times* October 29.
- **Cao, Shuji. (2005). “The Deaths of China’s Population and its Contributing Factors During 1959–1961.” *China’s Population Science* 1 (January).
- Cartier, Carolyn. (2004). “Engendering Industrialization in China.” In *Chang-ing China: A Geographical Appraisal*. Eds. Chiao-min Hsieh and Max Lu, pp. 269–290. Boulder, CO: Westview Press.
- **Chen, Changheng. (1918). *On China’s Population*. Shanghai: Shangwuyishuguan.
- **Chen, Duxiu. (1919). “Defense of *New Youth*.” *New Youth* 1.
- **———. (1920). “Malthus’ Theory of Population and China’s Population Problem.” *New Youth* 7(4):1-9.
- **Chen, Jian. (2015). *Documentary of China’s Birth Revolution*. Beijing: Social Sciences Documentation Press.
- **Chen, Yun. (1962). “The Current Financial and Economic Situation and Some Methods to Overcome the Difficulties.” In Party Documents Research Office of the CPC Central Committee. (1997). *The Selected Important Documents Since the Founding of the People’s Republic of China* Vol.15. Beijing: Central Party Literature Press.
- China Business News. (2015). “China’s Bachelor Crisis May Outbreak Fully.” *China Business News* September 30.
- Chinese Embassy in Norway. (2004). “China and United Nations Population Fund (UNFPA).” <<http://www.chinese-embassy.no/eng/wjzc/gjzjzhy/zgylhg/jjly/t110874.htm>>

- **Chinese People's Congress Magazine. (2016). "The Evolution Process of Birth Control as a Notational Policy." *Chinese People's Congress Magazine* 1.
- Clowes, Brian. (2004). *Kissinger Report—2004*. Front Royal, VA: Human Life International. <<https://www.hli.org/wp-content/uploads/2014/10/Kissinger-Report-A-Retrospective-on-NSSM-200.pdf>>
- . (2015). *Exposing the Global Population Control Agenda*. Front Royal, VA: Human Life International. <<http://www.hli.org/resources/exposing-the-global-population-control/>>
- Cobb, John B., Jr. (1999). *Earthist Challenge to Economism*. New York: MacMillan Press.
- **Communist Party of China (CPC) Central Committee. (2015). "Communiqué of the Fifth Plenary Session of the 18th CPC Central Committee." *Xinhua News Agency* November 3. <<http://cpc.people.com.cn/n/2015/1103/c399243-27772351.html>>
- **Cong, Jin. (2009). *The Zig-Zag Development Era*. Beijing: Peoples Press.
- Critchlow, Donald T. (1996). "Birth Control, Population Control, and Family Planning: An Overview." In *Politics of Abortion and Birth Control in Historical Perspective*. Ed. Donald T. Critchlow. University Park: Pennsylvania State University Press.
- Daly, Herman, and John B. Cobb. (1994). *For the Common Good*, 2nd ed. Boston: Beacon Press.
- Daniels, George H. (1971). *Science in American Society*. New York: Knopf.
- **Deng, Xiaoping. (1994). *Selected Works of Deng Xiaoping* (Vol. 2). Beijing: People's Press.
- **Deng, Yuwen. (2015). "Why Birth Control is a Failed Public Policy?" <<http://www.aisixiang.com/data/87931.html>>
- Deutsch, Francine M. (2006). "Filial Piety, Patrilineality, and China's One-Child Policy." *Journal of Family Issues* 27: 366–389.
- Dikötter, Frank. (2010). *Mao's Great Famine: The History of China's Most Devastating Catastrophe, 1958–62*. London: Bloomsbury.
- Dong, Xinqin, E-Shien Chang, Ping Zeng, and Melissa A. Simon. (2014). "Suicide in the Global Chinese Aging Population: A Review of Risk and Protective Factors, Consequences, and Interventions." *Aging and Disease* November.
- Durand, John D. (1960). "The Population Statistics of China, A.D. 2–1953." *Population Studies* 13(3): 209–256.
- Eberstadt, Nicholas. (2009). "China's Family Planning Goes Awry." *Far Eastern Economic Review* December 4: 24–29.
- Ehrlich, Paul R. (1968). *The Population Bomb*. New York: Ballantine Books.
- Evans, Karin. (2000). *The Lost Daughters of China: Abandoned Girls, Their Journey to America, and the Search for a Missing Past*. New York: Tarcher/Penguin.

- Felber, Roland, A. M. Grigoriev, Mechthild Leutner, and M. L. Titarenko. (2002). *The Chinese Revolution in the 1920s: Between Triumph and Disaster*. New York : Routledge-Curzon.
- **Feng, Xianzhi, and Jin Chongji. (2011). *A Biography of Mao Zedong*. Beijing: Central Party Literature Press.
- Fishwick, Carmen. (2015). "China's 'Loneliest Generation': What it Was Like Growing Up Under the One-Child Policy." *Guardian* December 7. <<http://www.theguardian.com/world/2015/dec/07>>
- **Fu, Peirong. (2007). *Reading Yijing*. Shanghai: Shanghai Joint Publishing Press.
- Gilmartin, Christina Kelley. (1995). *Engendering the Chinese Revolution: Radical Women, Communist Politics, and Mass Movements in the 1920s*. Berkeley and Los Angeles: University of California Press.
- Greenhalgh, Susan. (2008). *Just One Child: Science and Policy in Deng's China*. Berkeley: University of California Press.
- . (2010). *Cultivating Global Citizens: Population in the Rise of China*. Cambridge, MA: Harvard University Press.
- . (2013). "Missile Science, Population Science: The Origin of China's One-Child Policy." In *Mr. Science and Chairman Mao's Cultural Revolution: Science and Technology in Modern China*. Eds. Chunjuan Nancy Wei and Darryl E. Brock, pp. 305–332. Lanham, MD: Lexington Books.
- Greenhalgh, Susan, and Edwin A. Winckler. (2005). *Governing China's Population: From Leninist to Neoliberal Biopolitics*. Stanford: Stanford University Press.
- Gu, Baochang, and Yong Cai. (2009). "Fertility Prospects in China." Paper prepared for the United Nations Expert Group Meeting on Recent and Future Trends in Fertility. <<http://www.un.org/esa/population/meetings/EGM-Fertility2009/Gu-Cai.pdf>>
- **Gu, Mengyu. (1920). "Population is the Key to Social Problems." *New Youth* 7(4).
- ***Guoyu [Discourses of the State]*. (1988). Changsha: Yuelu Bookstore.
- Haberman, Clyde. (2015). "The Unrealized Horrors of Population Explosion." *New York Times* May 31.
- **He, Qinglian. (2012). "China's Birth Control Should Transform into Social Control." <http://www.chinareform.org.cn/society/manage/Forward/201207/t20120703_145785.htm>
- **Health and Family Planning Commission. (2014). "Forty Year-old Birth Control Policy Has Prevented 400 Million Births." July 10. <<http://society.people.com.cn/n/2014/0710/c1008-25264629.html>>
- Hernández, Javier C., and Amy Qin. (2015). "End of China's One-Child Policy Stings Its 'Loneliest Generation.'" *New York Times* November 13.
- ** *History of the Han Dynasty, Vol. I*. (1962). Beijing: Zhonghua Book Company.

- ***History of the Later Han Dynasty Vol. III.* (1965). Beijing: Zhonghua Publishing House.
- **Hong, Lue. (2015). "Deng Xiaoping and The Making of National Birth Control Policy." *Solidarity Daily* November 5.
- Hunt, Katie, and Serena Dong. (2015). "China Says it Will Give Rights to Undocumented Children." CNN December 11. <<http://www.cnn.com/2015/12/11/asia/china-unregistered-citizens-rights>>
- **Huo, Xuanji. (2015). "The Emergency Measures After the Great Famine: Restarting Birth Control Policy." *Twenty-First Century* 12.
- Ji, Mindy F., and James U. McNeal. (2001). "How Chinese Children's Commercials Differ from Those of the United States: A Content Analysis." *Journal of Advertising* 30(3): 79–92.
- King, Michelle. (2014). *Between Birth and Death: Female Infanticide in Nineteenth-Century China*. Palo Alto: Stanford University Press.
- **Li, Da. (1984). *The Collected Works of Li Da*. Beijing: People's Press.
- **Li, Dazhao. (1984). *The Collected Works of Li Dazhao*. Beijing: People's Press.
- **Li, Gucheng. (1995). *A Glossary of Political Terms of the People's Republic of China*. Hong Kong: Chinese University Press.
- Li, X., Xiao Z., and Xiao S. (2009). "Suicide Among the Elderly in Mainland China." *Psychogeriatrics* 9(2): 62–66.
- Liang, Jianzhang, Huang Wenzheng, and Li Jianxin. (2015). "A Population Crisis Challenges China, and it is Pressing to Lift the Birth Control Policy." *Decision Making and Information* 2: 10–61.
- **Liang, Zhongtang. (2008). "Research on Mao Ze-dong's Population Thoughts." *Journal of Lanzhou University of Finance and Economics* 5.
- **———. (2014). *History of China's Birth Planning Policy*. Taiyuan: Shanxi People Press.
- **Liao Zhongkai. (1985). *Shuangqing Wenji*. Beijing: People's Press.
- **Liu, Shaoqi. (1981). *Selected Works of Liu Shaoqi Vol. 2*. Beijing: People's Press.
- **Liu, Zhiru, Guo Peng, Zishuo Hao, Wang Fengwei, and Chang Xiao. (2015). "The First Batch of Only Children as Parents Steps into Senior Ranks: The Problem of Family Support for the Aged Appears." *Yanzhao Evening News* October 20.
- **Luo Pinghan. (2014). "Rash Advance and Anti-Rash Advance in 1956." *Literary Circles of CPC History* 17.
- **Ma, Qiusha. (2013). *To Change China: The Rockefeller Foundation's Century-Long Journey in China*. Guilin: Guangxi Normal University Press.
- Mao, Zedong. ([1949] 1954). "The Bankruptcy of the Idealist Conception of History." In *Selected Works of Mao Tse-tung, Vol. 4*. New York: International Publishers. <https://www.marxists.org/reference/archive/mao/selected-works/volume-4/mswv4_70.htm>

- . ([1957] 1993). "Speech at the Conclusion of the Third Plenum of the Eighth Central Committee, Version II" (October 9). *The Writings of Mao, Vol. II*. Ed. M. Y. M. Kau. New York: Routledge.
- . ([1958] 1966). "Introducing a Cooperative." In *Selected Works of Mao Tse-tung, Vol. 8*. New York: International Publishers. <https://www.marxists.org/reference/archive/mao/selected-works/volume-8/mswv8_09.htm>
- **———. (1999) *Mao Zedong wenji [Works of Mao Zedong]*, Vol. 7. Beijing: People's Press.
- Meadows, Donella H., Dennis L. Meadows, Jørgen Randers, and William W. Behrens III. (1972). *The Limits to Growth: A Report for the Club of Rome's Project on the Predicament of Mankind*. New York: Universe Books.
- Mencius. (1861). *The Works of Mencius. Li Lou I. Book IV. Part I*. Trans. James Legge. Oxford: Clarendon.
- Miller, Heidi. (2012). "China One Child Policy Results in High Female Suicide Rate." *Life News* March 29. <<http://www.lifenews.com/2012/03/29/china-one-child-policy-results-in-high-female-suicide-rate/>>
- **Ni, Fangliu. (2015). "'Leftover Women and Men' Were Severely Punished in Ancient Times." *Beijing Evening News* June 27.
- Ninkovich, Frank. (1984). "The Rockefeller Foundation, China, and Cultural Change." *Journal of American History* 70(4): 799–820.
- **Niu, Shucheng. (2003). "The Formation of Mao Zedong's Population Thinking at the Beginning of New China and its Formation Analyses." *Academic Journal of Zhongzhou* 5: 178–181.
- Ó Gráda, Cormac. (2011). "Great Leap into Famine?" China Study Group. <<http://www.wengewang.org/read.php?tid=30365> or <http://archive.is/NnStN>>
- **Ouyang, Zhesheng. (1998). *Selected Writings of Hu Shi*. (III). Beijing: Peking University Press.
- **Party Documents Research Office of the CPC Central Committee. (1995). *The Important Literature Since the Founding of the People Republic of China*. Vol. 11. Beijing: Central Party Literature Press.
- **———. (2003). *Mao Zedong Biography*. Beijing: Central Party Literature Press.
- **Peng, Peiyun, and Ma Guochuan. (2015). "Former Peng Peiyun Recalled One Child Policy." *Finance Magazine* October 30.
- **Peng, Xiaofei. (2015). "China's Full Liberalization of the Two Child Policy." *Beijing Youth Daily* October 30.
- Poston, Dudley L., Jr., and David Yaukey, eds. (1992). *The Population of Modern China*. New York: Plenum Press.
- Ridley, Matt. (2015). "The western environmental movement's role in China's one-child policy." November 7. <<http://www.rationaloptimist.com/blog/one-child-policy>>
- Rockefeller, David. (1973). "From a China Traveler." *New York Times* August 10.

- Russell, J. C. (1958). *Late Ancient and Medieval Population*. Transactions of the American Philosophical Society, New Series 48(3). Philadelphia: American Philosophical Society.
- Sanger, Margaret. (1922). "Birth Control in China and Japan." Typed draft speech. Margaret Sanger Papers, Library of Congress, LCM 128:491. October 31. <<https://www.nyu.edu/projects/sanger/webedition/app/documents/show.php?sangerDoc=101865.xml>>
- Schaeffer, Robert K. (2012). *Red Inc.: Dictatorship and the Development of Capitalism in China, 1949–2009*. Boulder, CO: Paradigm Publishers.
- **Shi, Chengli. (1997). "Deng Xiaoping Was the Originator of Birth Control." *Northwest Population 2* :46–47
- **Song, Jian. (1986). "Systems Science and China's Economic Reforms," In *Control Science and Technology Development*. Ed. Yang Jiachi, pp. 1–8. Oxford: Pergamon.
- **Song, Jian, Xueyuan Tian, Guanyuan Li, and Jingyuan Yu. (1980). "Several Natural Scientists and Social Scientists Predict the Development Tendency of China's Population in Future 100 Years." *People's Daily*. February 14.
- **South China Morning Post. (2016). "A 13 Year-Old Bride of Binyang, Guangxi Province, Marries a 16 Year-Old Bridegroom." *South China Morning Post* February 22
- **Sun, Muhan. (1987). *A History of Birth Planning in China*. Changchun: North Women and Children Press.
- Sun Yat-Sen. (1928). *The Three Principles of the People - San Min Chu I*. Trans. Frank W. Price. Shanghai: Commercial Press.
- Taylor, Adam. (2015). "The Human Suffering Caused by China's One-Child Policy." *Washington Post* October 30.
- **Tian, Ariel. (2013). "Mao's 'Nuclear Mass Extinction Speech' Aired on Chinese TV." *Epoch Times* March 5. <<http://www.theepochtimes.com/n3/4758-maos-nuclear-mass-extinction-speech-aired-on-chinese-tv/>>
- **Tian, Jiyun. (2004). "Reviewing the Process of China's Rural Reform." *Yan-Huang Historical Review* 6.
- Trescott, Paul B. (1994). "Henry George, Sun Yat-sen, and China: More Than Land Policy Was Involved." *American Journal of Economics and Sociology* 53(3): 363–375.
- Tsang, Steve. (2015). "Why China's Xi Jinping is Still Far from Chairman Mao Status." *Forbes* February 16. <<http://www.forbes.com/sites/steve/sang/2015/02/16/why-chinas-xi-jinping-is-still-far-from-chairman-mao-status/#7a8df2875f4a>>
- U.N. Population Division. (2011). "World Population Prospects, the 2010 Revision." <<http://www.un.org/en/development/desa/publications/world-population-prospects-the-2010-revision.html>>
- U.S. National Security Council. (1974). "NSSM 200: Implications of Worldwide Population Growth for U.S. Security and Overseas Interests

- (The Kissinger Report).” December 10. <http://pdf.usaid.gov/pdf_docs/Pcaab500.pdf>
- Upton-McLaughlin, Sean. (2013). “The Significance of Family in China.” *China Culture Corner* June 21. <<http://chinaculturecorner.com/2013/06/21/the-chinese-family/>>
- **Urban Express. (2012). “How to Support the Aging Society is Challenging Millions upon Millions of Chinese Families.” *Urban Express* March 16.
- White, Tyrene. (2006). *China's Longest Campaign: Birth Planning in the People's Republic, 1949–2005*. Ithaca, NY: Cornell University Press.
- Whitehead, Alfred North. (1933) 1967). *Adventures of Ideas*. New York: Free Press.
- Whyte, Martin King, Wang Feng, and Yong Cai. (2015). “Challenging Myths About China's One-Child Policy.” *China Journal* 74 :144–159.
- **Wu, Guosheng. (2008). “Scientism and Science Communication in Modern China.” October 27. <<http://www.aisixiang.com/data/21706.html>>
- **Xi, Jinping. (2014). “Always Put People Above Everything Else.” *China News* February 9. <<http://www.chinanews.com/gn/2014/02-09/5814500.shtml>>
- **———. (2015). “Recommendations for the 13th Five-Year Plan for Economic and Social Development.” November 4. <http://cpc.people.com.cn/n/2015/1104/c64094-27773638.html?_t=1447375689623>
- Xing, Feifei. (2015). “Two Child Age: To Give Birth or Not.” *Ganan Daily* December 4.
- Ye, Tan. (2011). “China Can Not Lift Population Control Policy Yet.” *21st Century Economic Report* May 4.
- **Yi, Fuxian. (2013). *Big Country with an Empty Nest: A Reflection on China's Birth Control Policy*. Beijing: China Development Press.
- **Yu, Peiyun. (2015). “Twelve Reasons to Terminate Birth Control.” <<https://www.douban.com/note/476076609/?type=like>>
- **Yuan, Longping. (2009). “Interview.” *South Daily* (Chinese newspaper). April 8.
- Yuehtsen, Juliette Chung. (2002). *Struggle for National Survival: Eugenics in Sino-Japanese Contexts, 1896–1945*. New York: Routledge.
- **Zhan, Ying. (1996). “Population Policy in Ancient China.” *Journal of Changchun Normal University* 4: 50–53.
- Zhang, Minru. (1983). “Population Development in Chinese History and its Characteristics.” *Population Research* 6: 38–43.
- **Zhang, Rongrong. (2013). “The Challenges of the Chinese ‘4-2-1 Family’.” *Silverrevolution* June 10. <<http://silverrevolution.org/author/rrzhang/>>
- **Zhang, Xu. (2010). “Economic Development is the Best Contraceptive.” *Southwest Business News* December 14.
- **Zhou, Cheng. (2014). “The Introduction of the Term ‘Science’ into Modern China.” *Chinese Academy of Social Sciences News* January 8.
- **Zhou, Enlai. (1956). *Report on China's Second Five-Year Economic Plan*. <http://news.xinhuanet.com/ziliao/2004-12/29/content_2392046.htm>