

Tradition and Modernization of Japan

MICHIO NAGAI

I

In the 1960s Japan often was cited as a successful case of economic development; some even spoke of the Japanese case as a "miracle". To me, Japan certainly has not at all been a miracle; if Japan is miraculous, most other nations are almost equally so. It is important, however, to point out that Japan is somewhat unique among today's nations. She is a nation outside the Western world. Though one of the highly industrialized nations of the contemporary world, only a century ago she was a backward nation. Because of this combination of successful rapid industrialization and a non-Western background, she presents a unique, though by no means miraculous, case.

Before talking about the modernization of Japan, it is necessary to sketch her history briefly, for present day Japan emerged only after centuries of development.

Japanese society is influenced by four major cultures. Western culture first exerted somewhat weak influences on Japan during the sixteenth century, then became a topic for more serious study and incorporation into the daily life of people much later, in the latter half of the nineteenth century. Much earlier, during the period between the seventh and ninth centuries, strong cultural influences began entering Japan from the Asian Continent. Among them, the two most important were Chinese Confucianism and Indian Buddhism. In addition to these three major world cultures, the indigenous Japanese culture, which existed before Japan developed close contact with the Continent, put down roots that survive even today.

Although the United States is said to be a melting pot of different races, the basic cultural orientation of that country is predominantly Western. Many different races who went there, as well as those who had been there previous to the founding of the country, went through the processes of acculturation called "Americanization". In contrast to the American case, the racial composition of Japan is Japanese. It is not at all easy, however, to identify what the Japanese culture is today, for it has emerged from the mixture of four different cultures.

For these reasons some understanding of Japan's earlier contact with the Continent is indispensable if we wish not only to gain insight into the modernization of Japan during the last hundred years, but also to anticipate what may come in the future.

II

(1) Between the seventh and ninth centuries the Japanese learned a great deal from the Koreans and the Chinese, with the government of Japan sending sixteen

student missions to China to study various aspects of Chinese culture. This, quite evidently, resulted in an important technical and cultural transfer. Indeed, the Japanese learned much from the Chinese about such basic concepts as the development of a national political administration, the technological knowledge and skill necessary to construct large buildings, the tax system, and the systematic rearrangement of agrarian land. Through the Chinese and the Koreans, the Japanese were also introduced to another important culture of the Asian continent: Indian Buddhism. Interestingly enough, Buddhism became more popular in Japan than it had been in China and Korea and since then has come to be regarded as a foundation of the basic world-view held by the Japanese. Some Chinese, and a number of Koreans, came to Japan to teach, then settled down and actually became Japanese. Fortunately, the Chinese empires then had no intention of conquering Japan, nor were the Japanese afraid of the Chinese in a political sense. The culture transfer between the two countries was peaceful. In the first half of the ninth century, however, the government of Japan decided that official missions would no longer be sent to China, a decision that initiated the process of Japanization. Hence, most of the great Japanese achievements in art and literature began to flourish in the tenth century. One must appreciate the fact that to absorb another great culture takes two or three centuries, and to adapt that borrowed culture to one's own tastes takes even longer. This is one lesson which we learn from the Japanese contact with continental culture in Japan's early history.

(2) The second important foreign influence was that of Western science in the seventeenth century. To the amazement of Westerners, Japanese accepted it quite readily. In Europe, the rise of science had been considered incompatible with the religious view of the world, giving rise to the sharp conflict, for example, over the Copernican view of the world. In Japan, however, it did not take more than ten years for Japanese intellectuals to become adjusted to the scientific view of the world. Initially, the Japanese learned primarily from the Dutch and a little from the British, since other Europeans who came to Japan in the seventeenth century were more interested in missionary activities, toward which the Japanese felt suspicion and fear. There was little hesitancy on the part of Japanese to accept Westerners who had no intention of conquering Japan, or of making religious converts of the Japanese. Japan was interested in relations with secular Westerners, and the Dutch belonged to this category. Ambitious Japanese were excited about "Dutch learning", the nickname used to describe the study of Western science, even though there was not even a dictionary then to aid in translating Western works. The first translated work was a book on anatomy translated by Sugita Genpaku, Maeno Ryotaku, and Nakagawa Junan. Not only did they translate the book, but they also went to see the dead body of a criminal who had been killed and compared the body with the book. This, evidently, was the beginning of the scientific world-view in Japan. If science is to be defined as a logically conceptualized body of knowledge about empirical reality, the Japanese began to acquire such a system of knowledge, when some intellectuals became interested in Dutch learning. Rapid diffusion of the scientific view was another important fact of history. Though Sugita, one of the translators of the book on anatomy, did not expect a large sale of the book, much to his amazement the book was widely read. The existence of a demand for scientific knowledge is indispensable for its development. And there was evidently such a

demand in Japan. A large number of Japanese then were living in urban centers; in fact, in those days the two largest cities in the world were London and Tokyo. Engelbert Kämpfer, a German of Dutch descent who wrote a detailed travel account of the Japan of that time¹ said that people in Tokyo were more publicly minded than people in most Western cities; Tokyo was much better planned than other cities he had seen. Not only anatomy, but also astronomy, medical sciences, and mathematics had been introduced to Japanese in the eighteenth century.

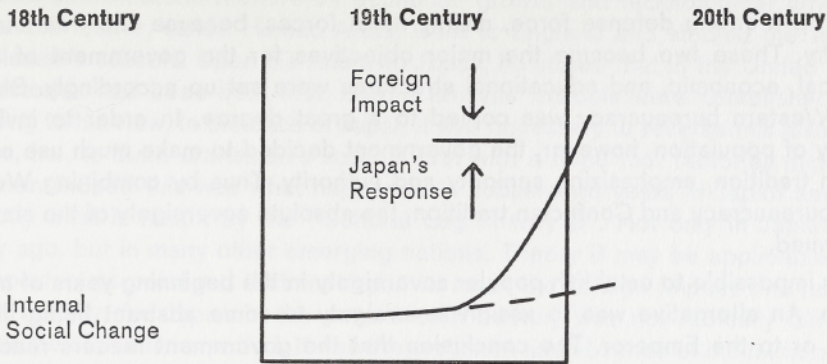
III

The latter half of the nineteenth century was a turning point in Japanese history. Nineteenth century Japan was the epitome of confusion and chaos. As the travel account by Kämpfer describes, Japan in the seventeenth century had not been radically different from European society in terms of urbanization, diffusion of ideas, and various arts and craftsmanship. However, when Commodore Perry came to Japan in 1853, thus ending the long period of Japanese seclusion, Japan was at once confronted with the fact that there had been radical changes in the nineteenth century West about which the Japanese knew very little. The Japanese knew what science was by this time. What they did not know was that an industrial revolution had taken place at the end of the eighteenth century in Europe and about half a century later in the United States. Perry's steamboats were thus a symbol of industrial revolution for the Japanese—a revolution which the Japanese soon found would be accompanied by changes in political and economic structures. At the same time, they observed that leading countries in Asia were now coming under heavy pressures from the Western Powers. India and China, for which the Japanese had a great respect for centuries, became, respectively, a colony and a "half-colony" under Western domination. Japanese, especially sensitive intellectual and political leaders, were afraid that Japan might be forced down the same path to colonization. Under such circumstances efforts were made by determined leaders to abolish feudalism and establish a modern state in Japan. The great social changes in the latter half of the nineteenth century cannot be discussed in detail. Only three points will be made.

(1) The first consideration is the way in which internal social changes were linked to external impacts. It was evident that Japan did not reach the stage of modern-state-sovereignty solely on the basis of self-innovation. At the same time, one should not disregard the fact that internal changes had been occurring since the eighteenth century. As Fig. 1 shows, gradual changes in all sectors of society, such as the diffusion of ideas, a gradual increase in agrarian productivity, the rise of manufacturing-type industries, and the gradual emergence of a division of labor, had been going on in Japan for decades. These changes were strictly internal, having no relationship to the foreign impact. But they were not quite sufficient in themselves to create an industrial revolution and establish a modern state. Had there not been the foreign impact, Japan might have gone the direction indicated by the dotted line in Fig. 1. But the historical fact is that the Western impact did

¹ History of Japan and Siam (2 vols., 1728, in German 1777/8).

Fig. 1: Internal Social Changes and Foreign Impact



come, thus accelerating the pace of social change. One might term it a problem of imposition and adaptation. In other words, Japan had to find ways to respond to the challenge of the West in order to survive as an independent nation. Fig. 1 is a simplified picture of Japan's place in World history. It was necessary for Japan to narrow the gap existing between its own and the West's "achieved industrial stage".

(2) The second consideration must be the assessment of the situation and decision making under these circumstances. Though many documents have been written on the subject, several ideas held by one of Japan's important 19th century political leaders are particularly helpful. Okubo Toshimichi, a founder of the modern Japanese bureaucracy was deeply interested in the study of Western civilization. In 1871, he sent nearly the entire cabinet abroad for study. Upon their return to Japan, a report was submitted to the government, and Okubo wrote that although people tended to think that Western nations were basically similar to each other, that simply was not the case: for Western nations differed among themselves. One nation, the United Kingdom, seemed to him more similar to Japan than others for three reasons. The population of both was thirty-two million. Both were island countries. And both had royal or imperial systems. In spite of these three similarities, however, the United Kingdom was wealthy and powerful while Japan was hardly independent. He attributed these differences to two major factors: the presence in England (and absence in Japan) of (1) industrial revolution and (2) political democracy. These were the elements that sooner or later Japan would have to achieve if she were to become a stable, modern state.

Situation given, it would have been difficult to have achieved industrial revolution simultaneously with political democracy. In a society like Japan a hundred years ago, it was understandable that a leader like Okubo feared that a hasty adoption of political democracy would lead to confusion. He decided that industrial revolution was to be regarded as the primary objective of the country's efforts.

In his thinking, the establishment of a strong bureaucracy was a necessary condition for industrialization. He stated that such an approach to industrial revolution would be called "heterodoxy" if the British type "political-democracy-first" approach was called "orthodoxy". However, under the circumstances, he said, such an approach

was necessary for the careful and responsible planning required to achieve industrial revolution in the shortest time possible. The second objective for Japan was to build up a strong defense force, mainly naval forces, because she was an island country. Those two became the major objectives for the government of Japan. Political, economic, and educational structures were set up accordingly. Structurally, Western bureaucracy was copied to a great degree. In order to invite the loyalty of population, however, the government decided to make much use of Confucian tradition, emphasizing seniority and authority. Thus by combining Western-type bureaucracy and Confucian tradition, the absolute sovereignty of the state was confirmed.

It was impossible to establish popular sovereignty in the beginning years of modern Japan. An alternative was to assign sovereignty to some abstract being like the state, or to the Emperor. The conclusion that the government leaders reached in drafting the 1889 Constitution was to assign sovereignty to the state in which the Emperor was the ruler. The Emperor, during the feudal period, had been the symbolic center of the Shinto tradition and a large number of Japanese did not even know of his existence. In this sense, the Imperial political system was not traditional; rather, it was newly, though firmly, established at the time of the birth of modern Japan.

(3) The third consideration is the relationship between the imposition of outside culture and the adaptation of the native culture in a backward nation like that of Meiji Japan. According to William F. Ogburn material culture changes more rapidly than non-material culture. He referred to the gap between the two as "the culture lag" and used forestry conservation as an example. That is, forests are cut down too rapidly, before any forestry policy is developed. Ogburn's theory, however, does not seem to apply to all situations. If we call Ogburn's theory "Cultural Lag Theory A", it becomes necessary to propose a "Theory B" to understand cultural change of a backward nation.

Fig. 2: **Two Theories of the Culture Lag**
Theory A²

Non-Material Culture	Lag
Material Culture	→ Change

Theory B³

Non-Material Culture	→ Change
Material Culture	Lag

² William F. Ogburn, *Social Change*, New York 1966.

³ For more detailed information on this point, see Michio Nagai, *Higher Education in Japan*, University of Tokyo Press, Tokyo 1971, p. 217.

As Fig. 2 shows, in Japan ideas borrowed from the West moved far ahead of such real changes in material culture as economic growth and technological advance. A Japanese leader, called Hamao Arata, went to England and studied the system of craftsmen's schools. Upon his return to Japan, he stated that in the United Kingdom factories had been built first, before artisans' schools were established. But according to his view, in the case of Japan it was necessary to reverse this historical process, i.e., to build craftsmen's schools first with a hope that factories might be born later. Indeed this was what happened in subsequent years in Japan and this is exactly what is meant by the "Cultural Lag Theory B". Not only in Japan of a century ago, but in many other emerging nations, Theory B may be applicable.

It is important to point out that for Japan to meet the foreign impact was not too difficult initially, for Japan in the seventeenth century was not radically different from Europe of the same period. It was the presence and absence of industrialization that brought about real differences between those two areas. The gap that the Japanese had to fill was actually not very large. In comparison to the gap which exists between the emerging and the advanced nations of today, the Japanese task of a hundred years ago was far simpler.

By 1900, 96 per cent of the people of Japan, including both men and women, were literate. The educational development of Japan surprised the world. Again it is important to remember that already in the middle of the nineteenth century about 40 per cent of young Japanese males were able to read and write, and about 10 per cent of young women were capable of reading and writing. To jump from 40 per cent to 96 per cent was not really such a surprising achievement, though these historical facts are often forgotten.

It is obvious that learning from the West was very important in the beginning of modern Japan. However, young Japanese intellectuals did not want merely to copy what was Western. They had their pride. If the Westerners were capable of coming up with new ideas in the field of science and technology, Japanese must be just as capable.

The question of imitation and creation was discussed in the 1870s by a British scholar who was then dean of the Polytechnical College of Tokyo Imperial University. Speaking to the Japanese students, he said that their ambition to be creative was understandable, but given the circumstances under which Japan was placed, it was urgent for Japanese then to imitate Western culture as much as possible. Imitation, he said, was an indispensable learning process if Japan was to survive; the time would come much later when the Japanese could afford to think creatively. The same words were spoken by various responsible leaders of the time. In spite of these warnings, however, creativity may be inherent in human beings. It was in this very Polytechnical College of Tokyo University that so many creative scientists were born.

IV

Now, a final question, that of institutional rigidity, must be considered. Beginning in 1868, it took about 40 years for Japan to achieve an industrial revolution. Previous to this achievement, the Japan-China war broke out during the 1890s. Until that time Japan had never had war against the Chinese: her relations with China had

been peaceful. But the Japan—China war was the beginning of an unfortunate relationship. Japan became conceited about the victory over a great nation like China. Ten years later, she was faced with another war, this time with a Western nation, Russia. Again Japan won the war. At the same time, the industrial revolution became fully developed and economic growth continued. Before the Second World War, economic growth of Japan averaged three to four per cent annually. In my judgment, however, economic growth by itself says very little about the development of a society. Because of Japan's success in economic growth after the beginning of her industrial revolution, a great navy and army were built and the Japanese became ambitious enough to enter competition with the greatest powers in the world, the United Kingdom and the United States. Her leaders also decided that Japan should expand her power in the Asian continent, sometimes to conquer and sometimes to develop those areas for the purpose of improving the living standard of Asians. These two goals were always delicately interwoven. What has happened since the industrial revolution in Japan will not be detailed. As is widely known, however, the last consequence was her defeat in the Second World War.

What was striking before the Second World War was the institutional rigidity in Japanese society. Land reform was not achieved, nor were labor unions strengthened. Instead, monopolistic industries persisted. Had there not been such a strong institutional rigidity, Japan might have walked a rather different path.

The institutional rigidity, in my judgment, was the consequence of various factors. One factor was bureaucracy. According to Max Weber's definition, bureaucracy is supposed to be efficient and rational, but his is an ideal type of bureaucracy. What really existed was a rather irrational and inefficient organization. In addition, Japanese society always has been highly familial. In the familial structure, each person's status is ascribed according to age and sex, and when this familialism is tied to bureaucracy, the structure becomes even more rigid. Another element which reinforced the rigidity was a strong coalition between bureaucracy and business. Although vertical social mobility is often considered a social force which facilitates the flexibility of social systems, it has another function, that of minimizing the strength of opposition against the establishment.

A wide diffusion of universal education in Japan had precisely this double function of facilitating the vertical mobility on the one hand and minimizing the strength of opposition on the other hand. What was emphasized in primary school was, above all, practical learning — not freedom of inquiry. Another emphasis was loyalty to the state and respect for social hierarchy.

At the university level, there was some emphasis on the freedom of inquiry, especially in the field of science and technology. Unless universities maintain a certain degree of freedom of inquiry, the society stagnates. If, on the other hand, all educational institutions are engaged constantly in the free exercise of intellect, the whole society may become unstable. This was at least the thinking of some important leaders of Japan at the initial stage of her modernization. Consequently, every person was legally encouraged to climb the social ladder according to his ability. This was especially true in the military and normal schools and to a certain degree in the Imperial Universities. Persons who might by nature have remained in the opposition camp were thus absorbed into the establishment.

Let us ask, finally, whether this institutional rigidity in Japan was broken down after the Second World War. It is true that under the occupation of the Allied Forces, many reform measures were achieved, such as land reform, strengthening of labor unions, dissolution of monopolistic industries, and the forming of a new constitution. However, one should not forget the simple fact that all this was done by the power of a double-headed bureaucracy. One head was the bureaucracy of the Allied Forces; the other was that of the Japanese government working under the Allied Forces. It was indeed an enlightened authoritarian despotic bureaucracy that brought about democracy in Japan. Such a political structure was undoubtedly helpful for quick economic growth and technological innovation.

Since the end of the occupation, a new coalition of three major powers has emerged. They include the government, business, and the conservative party, which actually has not been a party but a branch of the government. For more than twenty years, no opposition has been able to stand against this strong combination. Also Japan's universal education on the whole has served the purpose of pulling people together under the leadership of this power system.

So, by and large, the major objective of the country since 1868 has been industrial revolution and — after the war — technological innovation and economic growth. Japan has been a nation obsessed for a century by the objective of catching up with the advanced nations. In this sense, the United States and the Soviet Union, which also have developed as emerging nations outside Europe, may be somewhat similar to Japan. It is important to note that in these three nations the percentage of those enrolled in higher education among the college age population is higher than anywhere else in the world.

However, as noted earlier, the major objectives of education in Japan have been the borrowning of ideas from outside, the application of these ideas to practical uses, and the diffusion of ideas. Japanese scientists have been those who could select important ideas that have been already developed elsewhere in the world and that would be useful in Japan. Consequently the standards of primary and secondary education are high. According to a 1964 UNESCO study, Japanese achievement in mathematics at the age of thirteen is second highest in the world, following only Israel. But Japan's education is strong in quantity and weak in quality. Especially in the postwar society, universities have become very large and very much involved in the demands of society. Hence, it has become increasingly difficult for the larger universities to maintain genuine autonomy against outside political and economic interests.

Of course, the relationship between science and technology on the one hand and social demands on the other is complicated. It is difficult to establish hastily any causal relationship between these two elements. Many heterogeneous elements go into the concept of "social demands". And it is important to remember that scientists of today live by pay-cheques and belong to large organizations. Though money comes from various sources, the military, political and business demands seem to have priority. Sometimes the development of science brings about social changes and creates social demands. What really exists seems to be a feedback between the two elements. There are still many who wish to believe in a traditional folklore about the purity of science. However, in our days it is important to face social realities squarely and examine closely whatever really exists in the feedback

relationship. The Japanese case suggests the importance of such an examination. Otherwise scientists and engineers could easily be trapped in the system and, hence, become victims of society rather than helpful contributors to it.

V

What I have tried to show in the foregoing discussion is that the Japanese case over the last hundred years has been one of successes and failures. Japan has been successful in her achievement of industrial revolution. That is what W. W. Rostow meant by calling Japan an example of a successful take-off⁴. But one should not forget that this same Japan suffered a terrible crash in the Second World War. Japan had her second take-off after 1945. And now some people in Japan are beginning to wonder whether she must not be more cautious lest another crash befall her. Some foreign observers are expressing a similar fear. John Oakes of the New York Times wrote at the end of November 1970 an editorial entitled "Can Japan outlive her success?". He pointed out the negative side of having the world's fastest growing economy, namely, the fastest growing pollution rate in the world. (The air in Tokyo is now more polluted than that in Los Angeles.)

The one experience of the Japanese which may prevent a possible disaster is that Japan is the only nation in the world to have experienced a nuclear bombing. For this very reason, people in Japan may be more suspicious than others of the value of science and technology. On this point, I am sure that the Japanese are rather fortunate. A large number of scientists argue in Japan that three principles must be observed in the process of scientific inquiry: they are peace, open exposure of any problem under study, and democracy in the sense that scientific inquiry is for the people.

At the same time one must remember that the urge for economic development in Japan is still very strong. It is conceivable that we maintain in the future the kind of technological civilization we have had in the past, the strong bureaucracy combined with business interests, the constant borrowing of ideas from outside even while at the same time creating some within Japan itself. But the prospects for this happening do not look bright.

It will be necessary instead to build up a new culture in which science, technology, and economy are included in a larger, more comprehensive system of values. That is the reason I started this paper with a brief sketch of the continental influences over the Japanese in the early period. There is no doubt that the culture of Japan during the last century has been dominated overwhelmingly by science, technology, and economy. Not only Japan but the whole world may be at the turning point of history. Though people are uncertain as to the direction of history, some are in search of a new culture in which the realm of science, technology, and economy will be limited and in which the values of man and nature will be more highly esteemed.

The cultural influences we received many years ago from the Asian continent may contribute to the construction of such a new culture. On a smaller scale, many

⁴ W. W. Rostow, *The Stages of Economic Growth*, Cambridge, Mass. 1960. See also his *Politics and the Stages of Growth*, London 1971.

nations in the past have gone through difficult times of socio-cultural change within their own national boundaries. The seventeenth century civil war in England, the nineteenth century civil war in the United States, and Japan's Meiji Restoration of the same century were examples of such difficult changes.

On a larger scale, the whole world today seems to be faced with difficult socio-cultural change. It is under such circumstances that each nation must find ways to build a new culture. As I have pointed out repeatedly, the inertia of economic growth and technological innovation is very strong in Japan. However, the negative results of supporting the world's fastest growing economy have become more and more evident in recent years. The institutional rigidity which has been created by Japan's single-tracked objective will likely come into conflict with those who attempt to bring about new systems in society and culture. It is difficult to predict what will be the course of Japan during the 1970s. Let us hope that the value of man and nature shall be re-established in Japan, in co-operation with those who are working toward similar goals in other nations of the world. Though our tradition may be different from the Chinese, the European, and the American it is necessary that we all share more respect for the value of man and nature in the world culture of tomorrow.