
After this lecture you should be able to describe when and how Western biomedical science arrived in China. You should be able to distinguish various views of Western medicine held by Chinese people in the nineteenth and early twentieth century, both antagonistic and positive. You should also be able to outline specific contexts that were favourable to the transplantation of Western medical practices in China. Was it inevitable that Western science and medicine would diffuse throughout the world? The assumption has been questioned in the last half of the last century. Many of the ideas that follow have been taken from Andrews (1996).

The Reception of Western Medicine in China

Joseph Needham in his monumental Science and Civilisation in China had a particular view that sciences developing in different parts of the world would fuse ‘so that all ethnic characteristics melted into the universality of modern science’. However Needham had to admit that this did not happen comprehensively with Chinese medicine, which retained a distinctive separateness, and did not give up its unique epistemologies.

In China today three forms of medicine are taught 西醫 “Xi Yi”, Western medicine, 中醫 “Zhong Yi” Chinese medicine, and an “integrated” version of the two forms – “Zhongxi Yi Jiehe” 中西醫結合.

The story of the reception of Western medicine in China runs in tandem with the crisis of the late empire in the face of Western imperialism. The Chinese response to a growing awareness of European power in all its manifestations was first insularity and protectionism, then desperate but inadequate attempts at reform, followed by collapse in the face of the demonstrable superiority of Western technologies. In 1793 Lord George McCartney, a cousin of George III and an experienced diplomat, led a mission to the court of the Qianlong 乾隆 emperor. He obtained an audience to deliver his gifts only with extreme difficulty after which the Emperor wrote back to the British monarch, “we possess all things, I set no value on objects strange or ingenious, and have no use for your country’s manufactures”. For his part, McCartney correctly surmised that the Chinese were as hopelessly unprepared as they were oblivious to the impending threat of European intervention.

For a few decades the European Nations were distracted by the Wars of Napoleon Bonaparte and their aftermath, but by the 1830’s western missionaries and traders were becoming ever more active. Finally conflict with Britain loomed over the Opium trade. According to Dikotter the Chinese stand against the opium trade [1840-2] had nothing to do with any deleterious effects on the nation’s health, nor on its treasury through the outflow of silver to pay for the drug. Instead, he
argues, it was directly caused by a power struggle between Han Chinese Neo-Confucians [http://en.wikipedia.org/wiki/Neo-Confucian] and the Manchu aristocracy within the Qing court. The former, he argues, were seeking to re-assert their moral authority to lead the nation against the more laissez-faire attitudes of the latter. Whatever the cause, the results were the catastrophe McCartney had predicted. Once Britain had enforced favourable trade terms through demonstrating their overwhelming military superiority, the other European nations were eager to follow. The key dates were as follows:

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<tr>
<th>Event</th>
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<tr>
<td>Opium Wars</td>
<td>1840-2</td>
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<td>Taiping Rebellion</td>
<td>1851 - 1864</td>
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<td>Anglo French invasion</td>
<td>1857-60</td>
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<td>Treaty of Tianjin</td>
<td>1858</td>
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<td>Allowing access to China’s interior</td>
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<td><strong>Self-strengthening movement</strong></td>
<td><strong>1860 - 1895</strong></td>
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<td>Russian Occupation of Ili</td>
<td>1871</td>
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<td>Japan takes over Liu Qiu islands</td>
<td>1874</td>
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<td>Sino-French War</td>
<td>1883–5</td>
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<td>Sino Japanese War</td>
<td>1894-5</td>
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<td>Scramble for Concessions</td>
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<tr>
<td>Boxer Rebellion</td>
<td>1900</td>
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<td><strong>Pneumonic Plague in Manchuria</strong></td>
<td><strong>1910</strong></td>
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<td>Fall of the Qing Govt</td>
<td>1911</td>
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<td>Warlord years</td>
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<td>Nationalist Government</td>
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<td><strong>Nanjing Decade</strong></td>
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<td>Sino-Japanese War</td>
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The Self-strengthening Movement was a response by Chinese educated elite to the Treaty of Tianjin in 1858 which had made concessionary grants to the western nations of Britain, France, Russia and the USA. It sought to appropriate western technologies for the glory and defence of traditional China and to place the new science within an overall Neo-Confucian framework. The movement met with some success but it collapsed with the crushing defeat inflicted by Japan in the war of 1894-5.

In all this medicine rather lagged behind. There were three actors in the bringing of western medicine to China.
1. Western Medical Evangelists
2. the Chinese State (after 1895 there was a rapidly accelerating interest from Government which led to an interest among urban Chinese)
3. Chinese individuals who engaged in learning Western Medical practice of their own volition.

Western Medical Evangelists

In 1858 the Treaty of Tianjin allowed foreigners to travel anywhere in China and not to be subject to Chinese law. For the first time missionaries were allowed to own property and reside outside the treaty ports. The missionaries priority was the saving of souls but hospitals and clinics drew more converts than preaching, thus by end of 19th century most towns would have had a foreign mission and mission clinic.

The idea of using medicine to spread Christianity was first adopted by the American Board of Missions.

The China Medical Missionary Journal 1889 associates missionary work and international trade;

“While the primary object, is of course, to bring heathen nations to a knowledge of the Gospel, the missionary has always been a pioneer of commerce, and has not infrequently rendered eminent service to the cause of science. In thousands of places commerce has had no foothold until missionary zeal had prepared the way, gradually creating the conditions of successful trade and a demand for the products of civilized nations…..”

As we saw in lecture 6 there was already a strong association between religion and healing in Chinese culture. However western medicine with its emphasis on surgery, often without anaesthetic, was seen as strange and perhaps even malevolent. Body parts were weighed measured and stored in jars – practices that could only provoke suspicion and hostility among the general populous.

A letter from a Mr Reid in 1893 illustrates the problem;

“We now notice the troubles which arise from medical work….generally believed that the riot in 1868 which occurred by a physician who put a human foetus in a bottle and allowed it to be seen by the Chinese … the eye of a lad was replaced by a glass eye.. While the eye itself was kept in the possession of the physician.”
There was a fear of bodies being buried incomplete with their organs “stolen”. The illustration of a western doctor performing an autopsy in Japan is accompanied by a caption that bemoans the fact that not only was the victim murdered, dying away from home, but that after his death he was carved up like a pig or a sheep, and even then this wrong could not be re-dressed.

The wealthy elite continued to put their faith in traditional scholarly practitioners. Christianity was associated with heterodox beliefs, such as those which had fuelled the Taiping rebellion, and also the overbearing military strength of the imperial powers.
The poor were more obvious subjects for religious conversion. In the words of one missionary report:

“While the wealthier people do call native doctors, and will continue to do so to some extent, the great class of poorer people, whose conditions of life render them more liable to disease, and who would or could not go to native doctors, are glad to put themselves under our care.”

This of course only reinforced the low status of western medicine in the eyes of the gentry.

In 1834 the Reverend Dr Parker arrived in China. He was accompanied by Lam Qua, a medical portraitist trained in the Western style. Using chloroform Parker was able to perform surgery on cases of gross deformities. Lam made an artistic record of some of the events http://www.historicalvoices.org/lamqua/. The illustrations and paintings are a uniquely valuable resource for research that focuses on the growth of Western influence in China and Chinese perceptions of modernity. The pictures have only been exhibited once and must have been judged unsettling for ‘public view’. Strangely serene, the subjects have grotesque cysts, tumours, growths and amputations. (86 pieces are in the collection of Yale Medical College Library; another smaller group is at Guy’s Medical Hospital in London; and four paintings are housed at Cornell). Implicit in the images may be the notion that Chinese culture can find its way forward under the guidance of Western cultural superiority.

A few aspects of western practice were gradually recognised as superior; one or two curiosities and the odd new drug - the febrifugal effect of quinine was particularly celebrated. Parker mainly performed eye surgery and his ability to perform cataract operations acted as a point of connection to the local population. http://info.med.yale.edu/library/historical/parker.html

We must remember that Chinese had a great deal of minor operations; In 1899 M. Adrian Le Tellier wrote a chapter in a French thesis describing barber-surgeon type activities in China, local and general anaesthesia, bloodletting, cauterisation with moxa, acupuncture, the lancing of boils, suturing of wounds, extraction of projectiles, manipulations for hernia and haemorrhoids, and castration.

Western knowledge of anatomy arrived from 17th century onwards with Jesuit translations but as we saw in lecture 1 these can have had little more than curiosity value within the context of Chinese medicine. (Though it has been proposed that these texts did had a significant impact on the alchemical literature of the Qing era)
Another scenario where Western medicine was contested was the introduction of the Jennerian smallpox vaccine.

From the 4th century Chinese were able to clinically identify smallpox, which was referred to as bean lesion or bean eruption and these terms are linked constantly to the smallpox lesion. From the 4th to 10th century smallpox was mainly classified as “cold damage disorder”, unseasonable disorder or epidemic. After the 10th century smallpox progressively became endemic among children. Physicians developed a theory that it was an inherited disease manifesting before birth in the shape of taidu “foetal poisoning”; a moral background associated with a physiology arising from disorderly diet, emotions, life style and sexuality.
From the 16th century, the Chinese had practised variolation (the deliberate introduction of infected smallpox material from a smallpox sufferer into young children) in the south of China. There were five different forms of variolation which were designed to rid the body of the foetal poisoning and, accompanied by various rituals, they did prove effective.

By contrast the take up of the Jennerian vaccination, first introduced into China by Dr Alexander Pearson in 1805, was very slow. There were many technical problems obtaining and preserving vaccines. Free vaccination was offered by a number of well-organised Chinese charitable institutions. This led to conflict with the privately offered variolation. Vaccination claimed a better theoretical base, easier delivery, and was safer, allowing mass institutionalised provision. The variolation practitioners claimed to cause less suffering and less pockmarks.

One response was to sinicise the theory of the Jennerian vaccine, finding its roots or justification within Chinese tradition:

"Because the cow is an animal which belongs to Earth, Human spleen belongs to Earth. Using Earth, the same qi will mutually stimulate, the same category will mutually breed. Therefore, it can have such an effect."

Vaccination was normally delivered in the upper arm, but in one 1817 Chinese discussion we find it being introduced through acupuncture points. None-the-less variolation survived into twentieth century, especially in rural areas.
The self-strengthening movement (1860 – 1895) was a move initiated by influential officials in the imperial government to strengthen China militarily by establishing arsenals and shipyards with western machinery. Under the slogan “Chinese learning for our foundation, Western learning for practical application” it inculcated the slow development of an urban consensus in favour of the importation and assimilation of western technology, particularly military technology. It was in this same spirit that in 1881 the Tianjin Medical School became the first to be established by the government for the teaching of western medicine.

The defeat by Japan in the war of 1894-5 and the suppression of the Boxer Rising by the concessionary powers in 1900 both emphasised the need for reform, but also made it harder to achieve. Opinions polarised: conservative officials of the failing Qing government continued to reject attempts to modernise their institutions, while for others the modernisation of China seemed only attainable by embracing all of western culture.

Public Health

Medical missionaries were less concerned with public health than with the demonstration of individual salvation as manifested through their training in curative medicine; it suited their purpose of gaining conversions to their faith.

However by contrast Public Health had both a practical and economic imperative. Nineteenth century campaigners for public health in Europe did so within the background the economic requirement to keep workers in good health; only then did it become a legitimate and proper concern of the state.

While in 1884 the British run Chinese Imperial Maritime Customs Medical Services reported:

“The sanitary legislation of Western cities is based upon the one idea that disagreeable and offensive odours are necessarily deleterious to health. The condition and mortality of Peking would seem rather to explode this belief.”

In the case of China there was some doubt concerning the relevance of Western sanitation:

any large scale success (of public health) would but aggravate the ominous problem of over-population…
In fact there had always been public health works in China: siting of wells, urban waterways, provision of fresh drinking water, flood control, disaster relief, aesthetic projects, and the distribution of medicines during epidemics under the Tang and Song. Infirmaries for the seriously ill had also been introduced during Song, while in the lower Yangzi the gentry supported charitable dispensaries and clinics, forming part of their social obligations and a powerful way of demonstrating their elite status.

But the coming of sanitation and public health in modern times was concerned with the creation of China as a modern nation-state. It was a political statement in the face of the foreign powers that were oppressing her. Thus the appeal for sanitation and public health works came first and foremost from political reformers, some who were also medically trained. Many reformers travelled abroad to study science and medicine, notably to Japan, where there had been an effective programme of top-down reform since the Meiji Restoration of 1868. Returning to China they sought to apply these standards of modernity learned overseas.

Notable amongst them were:

**Sun Yatsen** (1866-1925) father of the first revolution. He came from a ‘gold rush family’ that had emigrated to Hawaii. While there Sun became interested in Christianity and returning to China he studied medicine, becoming one of 1st graduates of Hong Kong medical school under Sir James Cantilie.


It was in western educational institutions that Sun became infused with the ideas of republicanism, later spending time in England and Japan where he devised his progressive and modernising vision for China.


**Qiu Jin** (1879 – 1907)

A revolutionary heroine who broke away from her conservative family background, leaving husband and children behind to go] and study in Japan. She subsequently became very active in the Red Cross society and on her return she became involved with Sun Yatsen’s political grouping, as part of the anti Qing
movement. She encouraged educated women to take up nursing and contributed to the convergence of the women's movement with the promoters of western medicine through development of nursing. She was executed after leading an anti-government uprising. (see http://www.distinguishedwomen.com/biographies/qiujin.html)

**Lu Xun 鲁迅** 1881-1936 is the most famous of Chinese revolutionary authors. He studied Western philosophy and then medicine in Japan, hoping to contribute to the health of his own nation. Lu finally chose literature over medicine as the most powerful means to change the spirit of the people, but he retained an enthusiasm for strengthening their bodies, believing a healthy nation resides in a healthy population. The ideas of Darwin, Huxley and Spencer influenced Lu along with many others and contributed to his formulating a view of China as a “sick nation”:

> My fellow countrymen, to whom servility has become second nature, will degenerate day by day through natural selection through apes, birds, shellfish, seaweed and finally to a lifeless thing.

Public health measures in China were driven by such western trained Chinese rather than westerners themselves.
The Manchurian Plague.

The crisis for the state and the medical system came together in 1910 with the outbreak of pneumonic plague in Manchuria. Both the Russians and Japanese were building railways across Manchuria to service their respective imperial expansions. Over 100,000 labourers migrated into Manchuria to work and alongside them came up to 10,000 amateur trappers some of whom became infected by pneumonic plague from the marmots they were trapping. The Russians imposed basic quarantine regulations, burning property and controlling the Chinese population of whole towns, which in turn brought about massive protests. The Chinese were in danger of losing further control over their territory and population.

In desperation the Emperor ceded complete authority to Wu Liande (Lien-teh) 伍連德, a graduate in medicine from Emmanuel College, Cambridge and vice-director of the Imperial Army Medical College. Wu established isolation hospitals and used house searches to find the sick and dying. He also instituted mass cremations – the inability to bury corpses in the frozen ground had been a major reason for the epidemic getting out of control.

The Imperial authority that Wu had been given, including the rights to conduct autopsies and cremate the corpses that were lying, unable to be buried, on frozen ground, were a complete breach with Confucian protocol. It represented a final surrender to the exigencies of modernity. Wu was able to commandeer the services of over 700 policemen for sanitary policing and further had at his disposal 1000 thousand soldiers, 500 labourers, 150 ambulance-men, 20 doctors and 29 students.

There were public complaints over the severity of the Wu’s policies, with much resentment and resistance – there was a popular perception that no one escaped the sanitary police. The Viceroy
of Manchuria complained of the prohibition on public prayer and sacrifice. However the measures were effective and had the vital benefit that they prevented Japan and Russia from expanding their military presence on pretext of the threat to their railway investments.

Wu’s North Manchurian Plague Prevention Service had produced its own vaccines and sera for plague, cholera, rabies, typhoid and scarlet fever. The success of Wu’s campaign was followed by the first ever international scientific conference in China: the International Plague Conference in 1911. Is there something significant about the fact that this was also the first year of the Republic? Perhaps political change is often preceded by, or coincides with medical innovations.

The interests of the government of the new republic and the emerging profession of foreign-trained medical staff were converging. However public health measures were always tied up with gaining the approval of foreign communities and access to foreign-controlled funds such as the Boxer indemnity funds. During a second plague outbreak in 1917 loans again were required from the foreign banks.

At around the same time as the Manchurian plague there was the first concerted attempt to regulate medical practitioners in the lower Yangzi. Anyone practicing medicine in this area had to be licensed and licensing examinations were held. The language and phrasing of the exam required people to be familiar with both classical medical literature as well as western medical developments.

However regulation and enforcement were far from universal; anyone could still claim that they were a doctor, and there was only an arbitrary application of regulations by local authorities.

(see Lao She short story “A Fine Beginning” in Modern Chinese Stories, W.F. Jenner trans. 1974
SOAS library CC895.136 /521318)

Medical associations were formed for those returning from study abroad and this led to rivalry between those trained in different national traditions, with Japanese or German trained physicians pitted against those trained in Britain. The May 4th protests against the 1919 Versailles Treaty, under which the German concessions in China had been given to Japan, also represented a general hardening of feeling against Japan.

By 1928 the societies for Western medical merged to speak with one voice and this, as we heard in the last lecture, in turn led to the beginning of a conflict with the Chinese medical association.
The Nationalist Government during Nanjing decade (1928-1937)

Without the provision of adequate machinery and facilities for the prevention and treatment of disease, easily accessible to the public, no government can be considered modern or complete.

From Reconstruction in China (1935)

Public health was now perceived as a tool of government for gaining status in the international community. Government assumption of responsibility for public health was an expectation of the international community. New laboratories were established and the outward looking policies led to China in turn becoming tied into the machinery of international trade and communication.

However the Nationalist Government’s priorities were concerned only with visible and apparent change rather than any underlying moral change. The Quarantine services at Chinese ports were still run by foreigners, which made control difficult and unreliable. Rudimentary quarantine hospitals had been erected in 1912 with regulations established for the inspection and quarantine of all vessels, however the foreigners were not inclined to quarantine themselves.

The new government approved a Chinese run National Quarantine service as a pre-requisite for a return of the Customs service into Chinese control. Wu Liande argued the case for this using two different approaches. For Western audiences he stressed the importance of science and medicine, however when writing in Chinese he emphasized how the new medical institutions would prove vital for achieving national control of tax, trade, becoming part of the international community, and reasserting national sovereignty. In 1930 Wu Liande took over the National Heath Administration of the Ministry of the Interior.

By 1937 those Chinese who had opted for Western medical education had done very well for themselves, enjoying high incomes in city practices, while it was western trained doctors who staffed nearly all of the central government health posts.

Revision and Reference Reading [pre-exam reading in bold]

Andrews, Bridie and Andrew Cunningham. *Western medicine as contested knowledge* (Manchester: Manchester University Press, 1977). In particular read the introduction.

Wong, K Chimin and Wu Lien-Teh *History of Chinese medicine: being a chronicle of medical happenings in China from ancient times to the present period* (Tianjin: Tianjin Press, 1932).
