

(Note)

Darwin and Japan

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The world is now in a process of evolution. A new chapter
is being opened in the history of civilization.

Hirohito, 28 December 1926
(Large, 1992)

Charles Darwin's theories of natural selection and the origin of species were published in 1859 at a time of enormous crisis for Japan. The Tokugawa government that had ruled Japan for several hundred years struggled to adapt to pressures from western powers to open up Japanese ports to western trade. The Japanese responded by sending missions abroad to study western science and culture. Germany, England and the United States were especially popular destinations.

Herbert Spencer was probably the most popular international science writer on evolution at the time. His works were extremely popular in the US and in Japan, as well. Darwin's books and ideas on natural selection appear to have reached Japan soon after Darwin published the *Origin of Species* in 1859. The political and social upheavals of the 1850's until the end of WWII framed how the Japanese public viewed Darwin's ideas. This paper will focus principally on how Japan's leaders viewed and used Darwin's theories when they first reached Japan.

Edmund S. Morse is generally credited as the first scientist to systematically promulgate Charles Darwin's theory of natural selection in Japan. (Shimao, 1981) After his inaugural lecture at Tokyo University in 1877, Morse later reported that he was delighted to speak before an informed audience unbiased by the prejudices so often he

encountered in the west. (Morse, 1917) Morse traveled briefly around Japan lecturing to other audiences before taking up his position as professor of zoology at Tokyo University, which was founded earlier that same year. Morse remained in Japan for three years, lecturing and studying seashell mounds in Aomori. (Morse, 1917)

The history of events connecting Charles Darwin to the Japanese Emperor spans half a century. When Darwin published the *Origin of Species* in 1859 Japan was still ruled by the Tokugawa warrior government that had banned most outside contact with the west for nearly three hundred years. Yet, Japan was not as isolated as the Tokugawa intended. Even before the collapse of the Tokugawa government in 1868, Japanese intellectuals, scientists, and samurai imported large numbers of European books, written in Dutch or Chinese, into Japan.

Eikoh Shimao asserts that the first reference to Darwin in a book printed in Japan appeared in Nobuchika Aoikawa's 1874 refutation of Christianity which he printed in *Hokkyodan* in Tokyo in 1874. (Shimao, 1981) Written in classical Chinese, Aoikawa crafted his argument against lifting Japan's prohibition on Christianity by drawing upon a variety of Buddhist and western sources, including Darwin and J. S. Mill. How well Aoikawa understood Darwin is less clear. As Shimao keenly observes, Aoikawa's argument relies upon alien science to refute an alien religion; and Darwin's claims about natural selection are never challenged, a point worth examining in greater depth. (Shimao, 1981) The only other treatise on Darwin written in Japanese and published in Japan before Morse's arrival appears to be a translation of Huxley's *Lectures on the Origin of Species*. (Cross, 1996)

Sherrie Cross argues that the Meiji government made every effort to maximize Morse's exposure to the public. (Cross, 338) The Meiji government organized a series of lectures featuring Morse as the keynote speaker. Morse spoke before audiences of six-eight hundred on at least twelve occasions and his lectures received the imprimatur of the Meiji intellectual elite, including Hiroyuki Kato, Yukichi Fukuzawa and Shoichi Toyama. The Morse lectures and the efforts of Meiji rulers and elite intellectuals are, therefore, extremely important and significant. However, as Shimao points out, John Thomas Gulick's lecture at Doshisha University in Kyoto of 1875 predates those by Morse. (Shimao, 1981)

2 The Gulick lecture is especially interesting because Gulick, a Christian missionary, argued that evolution, natural selection, and Christianity were compatible. We do not yet know much about what other Christian missionaries in Japan thought of Darwin. We do know, however, that Darwin's ideas gained an extremely wide audience very quickly and stimulated debate among individuals of diverse backgrounds and interests.

We must conclude from the Gulick lecture that we still have much to learn about how and when Darwin appeared in Japan. Despite the emphasis placed on the Morse

lectures, both by Meiji authorities and by modern scholars, it is clear that copies of Darwin's *Origin* must have appeared in Japan before 1877. Gulick was almost certainly speaking to an informed audience, an audience who knew something, at least, of Darwin's work. The fact that Aoikawa knew enough of Darwin to place Darwin's theories alongside those of J. S. Mill provides additional evidence that Morse and the Meiji rulers of Japan were responding to an ongoing debate, as much as informing the Japanese public. However, if Shimaō is correct about the paucity of Japanese language references to Darwin, the only way for Japanese readers to learn of Darwin must have been by word of mouth; or by reading Darwin in English, or in another European language.

In 1853, Gulick read *Darwin's Voyage of the Beagle*; and then read the *Origin of the Species* while attending Union Theological Seminary. Gulick collected specimens for Louis Agassiz in South America, briefly, before making his way across the Pacific. Gulick arrived in Japan in 1861 and worked as an unofficial missionary in Japan until 1862. It is extremely likely Gulick traveled with copies of Darwin's books, or at least with comprehensive notes. Gulick corresponded with other naturalists and conducted scientific research as he worked as a missionary in China until 1874. Gulick met Darwin and Wallace in England in 1872. When Gulick returned to Japan in 1875 as a missionary, he had already published two papers on evolution and natural selection. Gulick was a naturalist of the first order and one whose research on speciation in Asia preceded that of Morse by more than a decade. (Amundson, 1994)

Why would the Meiji rulers choose to make Morse, rather than Gulick, the voice of Darwin in Japan? Meiji opposition to Christianity and to Christian missionaries proselytizing in Japan likely played a large part. Kato wanted to build a scientific foundation for Japan based on evolution. Christian missionaries had no positive role to play in that process. However, the first trip Gulick made to Japan in 1861 compels us to accept that there was at least one accomplished Darwinian in the archipelago from that date. How many others may have known of Darwin at the early point?

We have long known that the Tokugawa kept large collections of foreign books. (Jansen, 1957) Olive Checkland, however, confirms that Maruzen, one of Meiji Japan's most successful retailers, was selling English language copies of Darwin's *Origin* in 1876, at least a year before Morse arrived in Japan. (Checkland, 2003) Maruzen had at least eighteen stores across Japan in 1876 and offered more than seventy English titles, including works by Mill and nine titles by Herbert Spencer. (Cross, 1996)

Maruzen, in its early formation, was very much a product of the community of students, doctors, and translators of Dutch learning that formed under the Tokugawa and triumphed in the Meiji. A Gifu doctor, Zenpachi Maruya, came to Tokyo at the end of the Tokugawa period; and there resumed his studies in Dutch learning under Yukichi Fukuzawa. As soon as the Tokugawa fell Maruya set up a pharmacy in Yokohama in

January 1869. Ten years later Zenpachi Maruya, Yukichi Fukuzawa, Yateki Hayashi, and the former Lord of Nakatsu, M. Okudaira, capitalized a much larger company called Z. P. MARUYA AND CO. (Cross, 1996)

The Maruzen list is illuminating for several reasons. We know that Darwin was available for sale in English in Japan as early as the 1870's in stores operated by locals rather than foreigners. Copeland points out that Maruya began ordering western books from western Yokohama merchants from the store's inception in 1869, before ordering directly from US and British suppliers in 1872. We can reasonably from the Maruzen history and from the Gulick treatise that Dutch, English, and German copies translations of the *Origin of Species* were circulating in Kyoto, Nagasaki, Yokohama and any other place westerners or students of Dutch learning might gather.

We might wonder in the absence of actual sales figures whether Spencer was really so much more popular than Darwin. There is ample evidence, however, linking Spencer very closely to Meiji intellectuals. Spencer advised the Meiji government about the wording of Japan's constitution. It may be more useful to situate the Aoikawa treatise, Gulick at Doshisha, the Maruzen foreign book list, and the Morse lectures, (Morse was the keynote speaker among others) as part of a much larger debate about the future of Japan that continued throughout the late Tokugawa period and the early Meiji era. All concerned frequently framed this discussion about the future of Japan in terms of national and social evolution.

Economic, political and military forces drove and informed this debate. The Tokugawa government faced challenges on numerous fronts well before the later part of the nineteenth century. Unhappy samurai in distant daimyo plotted, city dwellers complained about corrupt government officials and farmers rebelled at different periods during the early part of the century.

Perry's arrival off Edo, as Tokyo was known, in 1853 set a match to Japan, in a sense, triggering a crisis for the Tokugawa rulers. The Tokugawa knew a great deal about the west before Perry cruised into Yokohama bay and were not particularly in awe or ignorant of western naval power. The catastrophic defeat China suffered at the hands of the British in the 1840's had demonstrated clearly the superiority of western military might. Individual daimyo had established their own schools during the early 1800s. However, many of the experts in Dutch learning at the time were doctors. Thus, when Yukichi Fukuzawa petitioned his master for permission to travel from his home in Nakatsu to study languages and western culture under a physician in Osaka in the 1850's, precedent compelled Fukuzawa to frame his request as a petition to study gunnery from the doctor. (Fukuzawa, 1899)

The Fukuzawa anecdote encapsulates the dynamics of intellectual life in Japan in the late Tokugawa period, dynamics that would carry over into the Meiji period and tells

us much about how Japan's elites and those further down the pecking order would receive Darwin's ideas when they arrived in Japan. The long history of relying on the Confucian values of tradition and precedent maintained primacy of place, even during periods of national crisis. Thus, those Japanese who understood and admired Darwin's ideas had to situate these ideas within the existing Confucian framework, a framework that during the Meiji period, especially, placed enormous emphasis on "national essence".

Hiroyuki Kato and Yukichi Fukuzawa had both traveled to Europe with the first Japanese missions. Kato, in particular, became a powerful advocate of a form of "monism" that rejected any form of dualism, or notion of mind or soul. In the early years of the Meiji reign, ideas of individual liberty began to take cautious root and drew upon western philosophers such as Mill for support.

Japanese intellectuals used Darwin's arguments in favor of natural selection, as we have seen in the Aoikawa example, to justify political freedom just as those in power used Darwin to suppress individual and local uprisings. Kato and other powerful, ambitious Meiji intellectuals used Morse to repackage Darwin's ideas to serve the Meiji social and political agenda. (Cross, 1996)

Kato used Darwin's ideas of natural selection, an argument Kato may not have understood particularly well, at least as Darwin understood natural selection, to attack democracy and those who aspired to make the case for social equality in Japan. All species including man were engaged in an ongoing struggle for superiority. Spencer offered arguments that fit the political needs of the time. Few Japanese read Darwin in the original and translations would not appear until the close of the century. Kato could present Darwinism in any form he liked. The idea that Japan was an extremely old nation, as Morse's research on shell-mounds suggested, had enormous appeal for Meiji intellectuals seeking to build up the history of the nation. Darwin's arguments that evolution and natural selection supported an extremely old earth supported this view. Darwin's ideas supported discussions about social and political behavior, as much as questions of science.

Kato's reasons for presenting Darwin to the Japanese public in this fashion are not difficult to understand. The technological superiority of the west compelled Tokugawa and Meiji administrators to compete and this effort to compete with the west determined how Kato and others allocated Japan's scientific resources. Kato and others sought to present this competition, however, as a uniquely Japanese struggle. Kato wanted to control knowledge and make knowledge serve national needs and no other.

Kato's plan represented a major change in national policy in the early Meiji period. Under the Tokugawa, individual daimyo operated their own schools and sent their own missions to study the west. The Meiji samurai from Satsuma and other daimyo who

overthrew the Tokugawa had, in many cases, studied and traveled in Europe or America. These samurai, like Fukuzawa, understood and admired the power and wealth of America and Europe. They came to power determined to build a Japan that would rival the west and planned to do so using western technology and theories of political economy and science to build a Japan with enough military power to rewrite the security and trade agreements forced upon Japan by Perry and other westerners.

Fukuzawa clearly saw economic wealth as the fuel for military growth. In so far as Darwin could help expand the economy or help build a new Japanese social order, his ideas were officially sanctioned, at least the versions of Darwin's ideas promulgated by Kato. The fact is that Spencer played a far more active role. Darwin does not figure particularly large in questions of science until the early nineteenth-century.

In the early 20th century, Mendel's theories emerged again in the west. Mendel provided a much more coherent and practical explanation for heredity than Spencer, Lamarck, or Darwin. Japan's scientists quickly embraced Mendel, as well.

The Meiji industrialization project relied on foreign capital generated from the export of silk to finance modernization. Meiji administrators were keen to maximize as much profit as possible from the silk trade. In 1906, Kemmetaro Toyama published research confirming that he had applied the theories of heredity postulated by Mendel to produce a superior breed of silkworm. (Otsubo, 2005) Japan's rulers applauded the victory in eugenics. Around the same time, coincidental to the popularity of the new science of eugenics, Japanese scholars produced a bumper crop of translations of Darwin's work. A new formulation of the future of the Japanese race grounded in the science of Spenser, Mendel, and Darwin bound Darwin's ideas even more tightly to those of Spenser, in particular.

Emperor Hirohito was born at the end of the nineteenth-century. The Emperor's remarks at the beginning of this paper illustrate how popular this idea of 'evolution' was in Japan by then. We must appreciate, however, that Japanese intellectuals attempted to fuse western knowledge within a Japanese context, an effort that often created tensions for teachers and educators.

Darwin's theory of evolution appeared in Japanese textbooks alongside descriptions attesting to the divinity of the Imperial family. Those who protected and educated the imperial family shared Kato's view that patriotic intellectuals placed all knowledge with-
6 in a politically determined nationalistic canon. That said, Hirohito proved an able scientist and biologist in his own right and published articles on Japanese flora and fauna in the tradition of Darwin and Morse.

Who was the first person to bring Darwin into Japan? Morse is unquestionably the most important historical figure. However, it is clear that a number of less famous, less historically important individuals also had access to Darwin's works before Kato and the

Meiji government made such a determined effort to absorb Darwin within a newly formed canon of approved thought. (Brownstein, 1987) These individuals saw Darwin as a means to organize their reality and included people from disparate groups of Japanese and people from other nations all before Morse arrived and, perhaps, for some time after. John Thomas Gulick probably spoke of Darwin with a number of people during his stay in Japan in 1861-2. Gulick may well have been the most competent and well-informed authority on Darwin in Japan in 1861. He probably did carry the Darwinian gospel to Christians in Japan. It is quite likely, however, that others knew and spoke of Darwin at that time as well.

The diaries and letters of Yokohama's first merchants may tell us more about who actually brought the first copies of Darwin's work, in English or Dutch or German, into Japan. We know that two different foreign booksellers based outside Japan sold copies of Darwin to Maruzen. We know the names of the foreign ships that visited Japan before and after 1859 and we know which magazines and journals discussed Darwin's work.

A fair number of Europeans worked, studied, and taught in Japan during this period. They may have had these magazines sent to them, family and friends may have written and mentioned Darwin in letters, or individuals may have obtained copies of their own. In the Maruzen records and in the letters of Japan's first foreign diplomats and merchants lie the answers to the next part of the still unsolved puzzle of when Darwin really first came to Japan.

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